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AUTHOR	Taylor, Maurice; Lewe, Glenda
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ABSTRACT

This "how-to" manual provides a method for improving job-related training for employers and entry-level workers. The manual examines literacy task analysis practices, tools, and techniques so that service providers can meet the demands of a specific situation. Nine sections are as follows: (1) the changing workplace; (2) preparing for a literacy task analysis; (3) basic steps of a literacy task analysis; (4) choosing a method; (5) helpful hints for the task analyst; (6) building partnerships and getting started; (7) how to use the literacy task analysis to develop training; (8) suggestions for the development of the training program; and (9) 16 resources, 22 references, and a 32 item glossary. Each section may contain principles, examples, techniques, worksheets, study questions, and key points. Section four presents six situations for choosing a literacy task analysis method to suit various settings: (1) diversifying job functions; (2) improving customer relations; (3) extending decision making; (4) bridging the skills gaps between jobs; (5) moving through company ranks; and (6) establishing criteria for staff. (NLA)

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LITERACY TASK ANALYSIS

A ***How to*** Manual

for Workplace Trainers

Maurice Taylor and Glenda Lewe

Algonquin College
Adult Basic Education Department
December 1990

CE059006

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Preface

Recently there has been an increased awareness of the need to upgrade and retrain the Canadian workforce due to a mix of economic and social factors. In a search for ways to improve workplace training, the National Literacy Secretariat funded a project entitled Literacy Task Analysis. The overall goal of the project was in response to a need from business and labour to identify the basic skill requirements of different jobs in various employment sectors. The specific purpose of the project was to develop a set of procedures for conducting a literacy task analysis. These procedures would then be compiled into a "How to" Manual intended to provide a method for improving job-related training for both present employees and for entry level workers new to the workforce.

The expressed aim of the manual is to address the topics and techniques related to the area of literacy task analysis in a way that will appeal to a wide audience of practitioners. The plan of the manual is that it will enable trainers and service providers to examine a variety of literacy task analysis practices, tools and techniques and select the most useful to meet the demands of the

specific workplace situation. At the same time the manual will present information that practitioners can use to satisfy immediate needs in improving already existing workplace programs.

This manual has been written for a wide range of readers. It is designed for people who actually deliver workplace literacy and basic skills training such as trainers, instructors, union stewards, adult educators and tutors. It is also written for people who plan or support workplace training such as administrators, managers, union personnel, counsellors and consultants. In addition, the manual will provide helpful information for those people in business, industry, education and government who are searching for a starting point to improve the basic skills of our workforce.

The manual which is divided into nine sections can be used in a number of ways. Sections 2 through 9 are particularly relevant for the person with a keen interest in knowing more about the dynamics of workplace basics and how literacy task analysis can act as a road map for developing job-related training programs. The reader who has already acquired skills in planning and developing workplace literacy programs and is now interested in

literacy task analysis procedures may wish to select specific sections pertaining to these fundamental operations. A series of study questions at the end of each section have been included so that the manual can be used as a workbook by people who prefer to work through the various issues and problems of how to improve workplace training through literacy task analysis.

More specifically, the opening section contains some basic information about the changing workplace and the kinds of skills needed in our current workforce. It includes a definition of workplace literacy and presents a Basic Skills Profile which will help guide the literacy task analysis exercise.

Section 2 describes all of the important tools to prepare for a literacy task analysis. Useful terms and purposes for conducting a literacy task analysis are explained along with how to use a planning checklist.

The manual then moves into a section on the basic steps of conducting a literacy task analysis. Techniques for collecting and analyzing job information in terms of basic skills are presented along with five practical examples including worksheets and forms that can be used in the workplace.

Section 4 begins with a discussion of the practical issues in choosing a method. As well it describes six different workplace situations, applying the various techniques to help illustrate the various dynamics in choosing a method. It also presents some of the guiding principles in selecting a literacy task analysis method.

Section 5 provides helpful hints for the task analyst, the person who will be actually carrying out the analysis. How to conduct interviews and observe effectively are highlighted along with suggestions for selecting workplace documents.

This is followed by a section outlining the different ingredients that are necessary to build an effective workplace partnership. In addition the section provides important information on how to get started in conducting a literacy task analysis.

Section 7 describes how to use the literacy task analysis exercise to develop training. Learner participation, the importance of performance objectives and how to write them and selecting training methods are presented.

Section 8 describes a number of suggestions for the development of the actual training program. This section highlights specific program elements such as developing a lesson plan and choosing evaluation techniques.

The manual closes with useful resources and references and a glossary of terms.

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SECTION 1 The Changing Workplace

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Why is the Workplace Changing?

In Canada many changes in the workplace are now requiring a different type of labour force than in the past. Fewer young people are entering the world of work which means that over the next decade older Canadians will make up a larger part of the labour market. As well the number of women who participate in the labour force will grow more slowly in the next few years. These demographic changes are giving a new dynamic to the workplace.

Another trend facing the economy is the growth of the service sector. Community, business and personal services are now the main sources of job opportunities and it looks as if it will continue in this direction. Because of competition, manufacturers are also improving their methods of production and quality control. Knowledge has therefore become a very important national resource. These employment shifts have added their own dimensions to the changing economy.

Along with these trends our labour force is also experiencing technological change. In almost every Canadian industry some type of automation has been introduced. As well, with the increased use of technologies in such areas as robotics and statistical

control procedures more sophisticated skills and knowledge will be required. It seems that these various changes and conditions in the economy are calling for workers with a higher and broader range of skills in almost every job. If Canada's labour force is to remain adaptable new training strategies will need to be developed.

Recently representatives from business, labour, education and government have also noticed that there now exists a growing gap between the demands of the workplace and the skills of the workforce. Today employers are faced with the difficulty both of hiring skilled workers and finding entry level applicants who can read, write and compute well enough to participate in company training programs. As a result these groups have started to think of better ways of bridging education and training and have placed a new emphasis on basic skills training. As this approach continues to develop it will provide employees with the opportunities to learn the necessary skills now required for fuller participation in work life.

What is Workplace Literacy?

Basic skills training, or workplace literacy as it is often called, means many things.

* It means interpreting computer printouts from an engine diagnostic machine.
* It means calculating gross profits on the shop floor.
* It means following directions for the use of workplace hazardous materials.
* It means using time and space management skills when unloading deliveries.
* It means measuring pipes to specification.
* It means understanding a circuit wire diagram when repairing a VCR.
* It means giving clear and succinct directions to a night crew.
* It means explaining delays to customers.
* It means ordering parts and checking inventory by computer terminal.

In a nutshell, it can be defined to include, *"the written and spoken language, basic communication and computation, and the thinking and problem solving skills that workers and trainees use to perform job tasks or training."*

Askov, 1989.

One way of understanding this definition is to view specific workplace competencies under broad skills categories as shown in the profile described in Figure 1. What we find in the Basic Skills Profile are five major categories and examples of specific tasks which may be found in each group. As discussed in the Technical Report this profile is the culmination of many research efforts to help clarify an expanding definition of literacy skills for the workforce. Breaking down the basic skill areas into different parts can actually help prepare a workplace trainer for a literacy task analysis. If you begin to think about the core skills that are generally required in today's workforce it can help direct the task analysis exercise. In other words, the Basic Skills Profile can act as the frame of a house. It provides the trainer with the important structure around which the finished product is built.

FIGURE 1

A Basic Skills Profile

1. Basic Literacy and Numeracy Skills (reading, writing and computation)

   * Read notes, job orders, schedules charts, regulations and instructions.
   * Read to determine facts, opinions or implied meanings.
   * Write short notes & single paragraph letters.
   * Complete forms using figures, short phrases and sentences.
   * Use the basic number operations.
   * Recognize geometric figures.
   * Estimate how long it will take to do a job & measure metric units.

2. Basic Listening and Oral Communication Skills

   * Receive facts or directions.
   * Understand opinions, purposes or implied meanings.
   * Give information.
   * State possible reasons which might cause certain faults or symptoms.

3. Creative Thinking and Problem-Solving Skills

* Ask probing questions.
* Use reference manuals.
* Establish a priority or sequence in checking for problems.
* Solve numerical problems in word form.
* Show information.
* Implement solutions.
* Track and evaluate results.

4. Personal Management Skills (skills related to developing the attitudes and behaviours required to keep and progress on the job)

* Know company policies and practices.
* Know employer/employee expectations.
* Time management.
* Showing initiative and suggesting new ideas for getting a job done.
* Learn new skills and ways of doing things.
* Know the basic workplace hazards.
* Care of equipment and materials.

5. Teamwork Skills (skills needed to work with others on the job)

* Work with supervisors and co-workers.
* Stick to a schedule.
* Decision making skills.
* Giving directions.
* Giving feedback.
* Identify with the goals, norms, values, customs and culture of the group.
* Exercise "give & take" to achieve group results.

Successful Workplace Programs

Over the last few years basic skills training or workplace programs have developed in a variety of ways. However, in all of these programs there are some general principles of good practice.

* Successful programs are relevant to both employees and employers.

* Literacy skills are the cornerstone to learning technical skills.

* Partnerships among education, business, labour and training councils are producing exemplary programs.

* There is a place for a diversity of program models and approaches. General content programs, learner centered and job specific programs each have different strengths.

* Worker assessment techniques are diverse.

Study Questions

1. In your community how have you witnessed the rising skill requirements of the workforce?

2. What types of specific competencies can you add to the list in the Basic Skills Profile?

Key Points

* Demographics, employment shifts and technology are changing the workplace.

* Basic reading, writing and arithmetic skills are only the "tip of the iceberg".

* Successful workplace programs are relevant to both employee and employer.

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SECTION 2 Preparing for a Literacy Task Analysis

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Understanding the Terms

One of the first things a trainer or instructor must do in preparation for a literacy task analysis is to become familiar with some of the terms that are used. Here is a list of five words most commonly referred to when discussing this topic. Each term is accompanied by a definition or an example.

job analysis - a method of obtaining information about a job that will be performed or is currently being performed

task analysis - a method of obtaining detailed information about the specific components of a job such as abilities, skills and knowledge

task - a goal directed unit of work that has a definite beginning and end such as communicating with a customer, replacing a wheel bearing or completing a driver's trip sheet

task element - a smaller unit of work that is performed by a single person such as answering customer questions, removing a wheel or checking for mileage. Several task elements make up a task.

literacy task - a method of obtaining detailed information about the specific components of a job that require literacy skills such as reading, writing, computation, communication, creative thinking, problem solving, personal management and team work skills.

The Purpose of a Literacy Task Analysis

In traditional job and task analysis there are many methods for collecting job information as well as uses for the information obtained. This is also very true for the literacy task analysis. Some of the purposes for conducting such an analysis include:

1. *Learning new tasks.* With technological change happening so quickly many employees are now required to learn new tasks such as operate highly technical equipment or master complex quality control procedures. By conducting a literacy task analysis, trainers can develop materials that integrate the basic skills with new job tasks. This will enable employees to respond to change more effectively.

2. *Transferability.* By identifying the literacy requirements of different types of jobs workers will better understand the added skills needed in order to move from a current position to another one in the company. A literacy task analysis can clearly point out the different types of basic skills and training required to improve an employees ability to deliver quality service in lateral transfers within an organization.

3. *Promotability.* Employers often report that they have reliable workers who demonstrate desirable employability traits such as positive attitude, punctuality and sensitivity, but who lack the basic skills required for higher level jobs. Conducting a literacy task analysis of these higher level jobs will enable trainers to develop materials that will better prepare these employees for promotion and increased responsibility.

How to Approach a Literacy Task Analysis Exercise

As with traditional job and task analyses there are also a wide range of methods for data collection and interpretation when conducting a literacy task analysis. Before getting down to the nuts and bolts of such an analysis it may be useful to point out some suggestions on how to approach this exercise.

1. A literacy task analysis should be conducted in such a way that it does not **artificially distort the job or task** being analyzed. By concentrating on the microscopic detail, the analyst could fail to see aspects of the overall picture which are critical to success in a job.

2. A literacy task analysis should have a **specific application** such as worker training, worker mobility, curriculum design, safety or allocation of human resources.

3. A literacy task analysis can be viewed as a **process** which examines the component parts of some whole in terms of the literacy and related basic skills.

Planning a Literacy Task Analysis

A good literacy task analysis always starts with careful planning and an eye towards detail. It is important to remember that a request to conduct a literacy task analysis may come from a wide range of workplace environments - a small business with less than 15 employees or a company with 65 workers or a larger organization with more than 200 employees. As well the request may come from the owner of a shop, or a union representative or a union-management committee. In addition the business, company or organization may have had a previous track record in offering quality worker training programs or may be entering this area for the first time.

For each of these circumstances, planning for a literacy task analysis may mean asking different questions. In order to get started in the planning stage the following groups of questions may help you develop your own planning checklist.

Purpose Questions.

* What is the specific purpose of the literacy task analysis?
* Is there a particular department manager or union that has made the request?
* Who has expressed this need?

Workplace Background Questions.

* Is there a training culture evident in the business or workplace?
* What kinds of training programs have been offered over the last three years?
* What were the factors that determined successful participation?

People and Product Questions.

* Who will you be working with in conducting the literacy task analysis?
* Are the arrangements to be drawn up formally or left informal?
* What are the expectations of the different members involved in the exercise?
* What are the time frames?

Trainee Questions.

* How will confidentiality of trainee information be treated?
* If a training program is to be developed which employees will be involved?

Job Questions.

* What kinds of problems have occurred within the job in the past?
* What kind of information can be provided about the jobs to be analyzed?
* How do you propose to collect the job information, to analyze this information, to plan the training program and to develop the training materials?

Procedures Questions.

* Will someone be involved in verifying the information you have collected and analyzed?
* Will your methods interrupt the work process?
* Are the methods you have chosen the simplest ones?

Study Questions

1. An easy way to remember definitions is to associate the term with one key word. What is one key word that will help you understand task analysis, task and task element?

2. What are the three most important questions in your own planning checklist?

Key Points

* A literacy task analysis is a method of obtaining detailed information about the specific components of a job that require basic skills.

* The purpose of a literacy task analysis is to help employees learn new tasks, transfer to another job or be promoted.

* Planning for a literacy task analysis will help get better results.

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SECTION 3 Basic Steps of a Literacy Task Analysis

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Basic Steps of a Literacy Task Analysis

While there are various ways of conducting a Literacy Task Analysis, there are some fundamental steps common to each approach. In this section an attempt is made to outline both the fundamental steps and some of the techniques that can be used in each step of the analysis exercise. The authors found the following three key resources useful in selecting the various tehcniques: ***Analyzing Jobs and Tasks*** by K. Carlisle; ***Job Analysis - A Practical Guide for Managers*** by M. Pearn and R. Kandola; and ***The Job Analysis Handbook for Business, Industry and Government*** by S. Gael. As well this section provides several examples of how to actually conduct a literacy task analysis, using these various methods to help illustrate how it all fits together. Practical worksheets that can be used by a trainer also follow each example.

STEP 1 - Identify the main duties, tasks or activities of the job based on the interview with the employee, employer or union representative.

STEP 2 - Collect information about how the main duties, tasks or activities of the job are done.

STEP 3 - Break down the main tasks of the job into steps or sub-tasks and verify the information with the employer or employee.

STEP 4 - Analyze each of the sub-tasks for the basic skills and knowledge required to do the task.

STEP 5 - Assemble the job information collected and analyzed in a usable way ready for developing a workplace basic skills curriculum.

Simple Techniques to Help Collect Job Information (STEPS 1 and 2)

Job information is obtained through a variety of means, including:

1. interviewing the incumbent of a job
2. interviewing the supervisor of the job to be examined and the union representative of a unionized workplace
3. observation of the incumbent
4. observation and subsequent questioning of the incumbent

5. collection and analysis of manuals, work sheets, forms and other workplace documents
6. interviewing a technical trainer familiar with the job to be analyzed.
7. observation of a class being presented by a technical trainer whose job it is to train new entrants to the job.

Job Function Technique. Depending on the job to be analyzed, it may be desirable to organize the material in a particular way to provide a sharper focus. The *Job Function Technique*, for instance, which categorizes job functions as they relate to information, people and things provides one simple method. The *Risk Assessment Technique* which rates the importance and difficulty of each task is another. All of the techniques mentioned in this section are described in the **Glossary** at the back of the Manual.

Job Learning Analysis Grid. It will be important to consider what kind of forms or aids you wish to use in collecting job information. If you are looking at basic skills from the point of view of incremental skills needed for transfers or promotions,

you may wish to use the *Job Learning Analysis Scoring Grid* which will permit easy comparability. The form itself is the main instrument for job information collection and you would go to the interview with the form in hand. The form is included in Example 4 of this section on page 57.

Daily Log Technique. A **daily log** compiled by a competent employee outlining tasks performed over a period of a week or two will be another means of collecting job information. Using this technique the employee simply records the main activities of the day within certain time intervals and jots down a couple of details about what was going on during that activity. Sophisticated writing skills are not required since the information is recorded in point form. The result of this exercise is a list of tasks that are actually performed over a given period of time.

Job Description. **Job descriptions** sometimes exist in personnel files but they should be regarded sceptically, partly because job descriptions often do not reflect real jobs, and secondly because there will probably be insufficent detail for a literacy task analysis. If such documents are readily available, however, you

may wish to examine them briefly for a very general overview of the job. Keep in mind that accurate job descriptions focusing on basic skills can be an output of a literacy task analysis. The techniques discussed in the next part can be useful in this exercise.

Understanding How a Job is Done (STEPS 3, 4 and 5)

By observing a job being done and interviewing a competent performer you will have probably collected enough information to proceed with the next steps of the analysis. In these next steps you begin to understand how the job is done by breaking down the main duties and looking at the basic skills required to perform these duties. In other words you are taking the job information collected and making it useable for training purposes. There are many ways to go about organizing and presenting this information.

Task Matrix Technique. One way which will show how a job is done is the **Task Matrix Technique**. The analyst goes over the notes made

from the interviews and observations and lists the major duties vertically and the basic competencies required horizontally. From this exercise it is possible to get a good understanding of the various skill areas that a worker brings to each major job function. This method easily results in a job description. As well employees can verify the information very quickly. An example of this form can be found in Example 1 of this section on page 41.

Basic Task Description Technique. Another method for understanding how a job is done is the **Basic Task Description Technique**. In using this technique the analyst details the major tasks looking for sequence and background information such as conditions, equipment and standards. This method can be used to record the steps or elements in a task along with related information like specific workplace basic skills. It provides a moderate level of detail and is also helpful when asking the employee to verify the results of the analysis. An example of a completed form can be found in Example 1 of this section on page 42 and 43.

Flow Chart Technique. Once the analyst has discovered what aspects of the job are significant it is important to describe how these tasks are done in terms of the basic skills requirements. The **Flow**

Chart Technique is another method for organizing job information by showing actions and decisions in a relatively straightforward way. Using this technique the analyst is able to produce a very clear and understandable task description which outlines activities or tasks as sequential steps. This finished chart can also be used as a job and learning aid (see page 49). The method may be useful in better understanding job tasks that require creative thinking and problem-solving skills and team work skills.

Helping Trainees Learn How to Do a Job

One main reason for conducting a literacy task analysis is to help trainees learn how to do a job - that is to say, the results of the literacy task analysis will feed directly into training programs. Often training programs do not start from an in-depth knowledge of a job and the many skill levels it requires. This means that training could suffer from an "overload" of technical information and an "underload" of upgrading of the basic skills which contribute to trainees' learning of a job.

The literacy task analysis will help trainees learn to do a job by:

1. identifying the degree to which the job calls for the various skills outlined in the Basic Skills Profile;
2. outlining how the basic skills required for the targeted job differ from skills required for other jobs within the workplace; and
3. providing specific information on the level of complexity of the skills required in the job.

Some Examples of a Literacy Task Analysis

For both the novice and experienced trainer one of the challenges in performing the basic steps of a literacy task analysis is deciding which methods and techniques best suit the situation. In this next part we have tried to provide a range of workplace environments in order to demonstrate how these various methods can be applied. Needless to say these examples are not exhaustive but may help illustrate how to select a method or combination of techniques in order to develop a job related workplace basic skills program.

Five examples are presented. In the first example the literacy task analysis is used as a means of identifying the basic skills that require updating in the automotive repair service sector. The second example illustrates how a literacy task analysis can be used to identify the basic skills needed to train floor supervisors in the retail sector. In the third case the literacy task analysis could be used to identify the basic skills needed for a key job in the retail sector. Example four uses a literacy task analysis to compare two jobs in the construction sector for the purpose of tranferability, and the fifth example uses a literacy task analysis to create a skills ladder for promotion in the wholesale food sector.

Example 1

Using Literacy Task Analysis for Updating Skills

(Automotive Repair Service Sector)

In this example a literacy task analysis was performed with a licensed motor vehicle repairer who worked in a small car care business with six other employees. The company offers a complete automotive repair service in both electrical and mechanical maintenance. The basic steps in performing the literacy task analysis included *observation interviews, task matrix technique, basic task description technique and task criticality.* These techniques should be viewed as a **unit** because each contributes its own strength to the final result. Both the employer and employee, a highly competent performer, were interviewed using the guideline questions found in WORKSHEET 1 at the end of this example. This information provided a good background of the work environment, main duties and competencies of the job as well as an indication of the basic workplace skills needed for the different duties.

Because 80 % of this employee's time in an average week was spent in performing electronic tune-ups and repairing brake problems these duties were observed each for three hours. The analyst used the *observation interview* in order to obtain further

information on the duties being carried out. Observing and questioning was done while the worker was performing his duties. Special note was made of all the specific basic workplace skills used by the highly competent performer. This information was then categorized using the *task matrix technique*. WORKSHEET 2 on page 41 illustrates how the analyst arranged the observed actions and competencies of the highly competent performer in relation to the two targeted duties.

From the information on the worksheet a job description and task statements were written. For the duty of electronic tune-up the following task statements were developed:

* assess engine malfunction.
* diagnose engine problem.
* estimate costs.
* communicate problem to customer.
* communicate costs to customer.
* plan operations.
* repair malfunction.
* evaluate repair.

These task statements were then verified by the highly competent performer. The next step was to describe exactly how the two major duties were performed by breaking down the task statements

into task elements or steps and recording the specific workplace basic skills required for each step. This was done using the *basic task description technique*. WORKSHEET 3 on page 42 highlights how this information was organized.

After each task statement was detailed the highly competent performer rated the frequency, importance and difficulty in learning each of the major tasks. This exercise was called *task criticality*. In the example of electronic tune-up, diagnosing the engine malfunction and communication with the customer were the two tasks rated as most frequently required, most important and most difficult to learn. It can be seen that from the results of this literacy task analysis a job related workplace training program can be easily developed.

WORKSHEET 1

Employer Questions for Selection of Employee

1. What is the job title of the selected employee? Actions performed? Objects used?

2. What are the main duties of the job?

3. Are there new systems, procedures or responsibilities on the job?

4. Are there difficulties experienced by present employees due to a deficiency in literacy-related skills?

5. Are there procedures not fully or correctly utilized?

6. Have there been accidents or legal liabilities due to a deficiency in literacy-related skills?

7. Does your company have a sufficient pool of qualified workers?

Task Matrix - Motor Vehicle Mechanic

	Competencies						
Targeted Duties	Assess	Diagnose	Estimate	Communicate	Plan	Repair	Evaluate
Electronic Tune-Ups							
Brakes							
Steering							
Transmission							

WORKSHEET 3

BASIC TASK DESCRIPTION TECHNIQUE

Job: Motor Vehicle Repairer

Targeted Duty: 1.0 Electronic Tune-Up

Task: 1.2 Diagnose Engine Malfunction

Task Element		Workplace Basic Skills & Knowledge
1.2 (a)	Perform an ALLTEST	* connect appropriate probes to engine parts
1.2 (b)	Read results from scope sheet	* know and understand codes and numerical values
1.2 (c)	Check spark plugs, distributor cap, fan belt	* decide which part to check first wires, air filter, * verify results from scope sheet by checking designated parts * detect signals for wear on parts

Task: 1.4 Communicate with Customer

Task Element		Workplace Basic Skills & Knowledge
1.4 (a)	Call customer	* use effective telephone skills
1.4 (b)	Explain mechanical problem	* translate mechanical problem into "layman's language"
1.4 (c)	Answer customer questions as to why and how the problem occurred	* ask probing questions to ensure customer's understanding
1.4 (d)	Give estimation and obtain approval to do repair	* speak clearly * ask questions directly

Example 2

Using Literacy Task Analysis to Train Floor Supervisors

(Retail Sector)

In this example a literacy task analysis was performed with an assistant grocery manager of a medium sized food store. This chain store has five departments employing approximately 130 workers. The basic steps in performing the literacy task analysis included the *daily log technique*, the *risk assessment technique*, the *walk and talk technique* and the *flow chart technique*. These techniques should be viewed as a **unit** because each contributes its own strength to the final result. Preliminary interviews were conducted with both the manager and the assistant grocery manager to better understand the nature of the job and work environment. These interviews assisted the analyst in selecting the most appropriate ways of collecting information on the basic skills of the job.

Because the position was a "managing of staff" job it would have been difficult and awkward to observe many of the major supervisory activities and the amount of time spent on each task. Therefore for a week the competent worker recorded in a small notebook his work activities with details and the amount of time

spent on each task. These activities were recorded for one half hour intervals and important details were jotted down in point form. WORKSHEET 4 on page 47 is an example of the format used in the *daily log technique*. From this log key actions were underlined and a list of task statements were written which included some of the following:

* prepare day-time staff schedule.
* plan daily activities.
* report customer complaints.
* write schedule.
* talk to sales representative.
* read electronic mail.
* check planogram.
* read weekly store specials.

Once a complete task inventory was compiled the *risk assessment technique* was used to target selected tasks for further analysis. Difficulty, importance, frequency and special training required were the four rating factors considered. WORKSHEET 5 on page 48 is an example of the form used. Based on the rating exercise two main groupings of tasks or duties were identified: assigning day staff duties and operating the telexon computer.

Using the *walk and talk technique* the analyst observed the competent performer conducting these groupings of tasks. This assisted in identifying a more complete listing of the equipment, materials, staff interactions and basic skills required.

Using the *flow chart technique* a basic behaviour path was developed for each of the main tasks. WORKSHEET 6 on page 49 illustrates how the chart was outlined for the task of "Assigning day-staff duties". In using this technique only the sub-tasks representing the most likely performance flow are included. Crucial to this task were the decision points and alternative behaviours which are marked by a question. The result of this exercise is a task description that allows for each action to be translated into a basic skill needed to perform effectively. It provides a good example of the steps and skills necessary to solve a staff scheduling problem.

WORKSHEET 4

Form for a Daily Log

POSITION: Assistant Grocery Manager

DATE: July 16, 1990

TIME (1/2 hr)	ACTIVITY	DETAILS (point form)

WORKSHEET 5

Risk Assessment Technique

Task 1:

	1	2	3	4	5
difficulty	very low	low	moderate	high	very high
importance	very low	low	moderate	high	very high
frequency	very low	low	moderate	high	very high
special training required	very low	low	moderate	high	very high

Task 2:

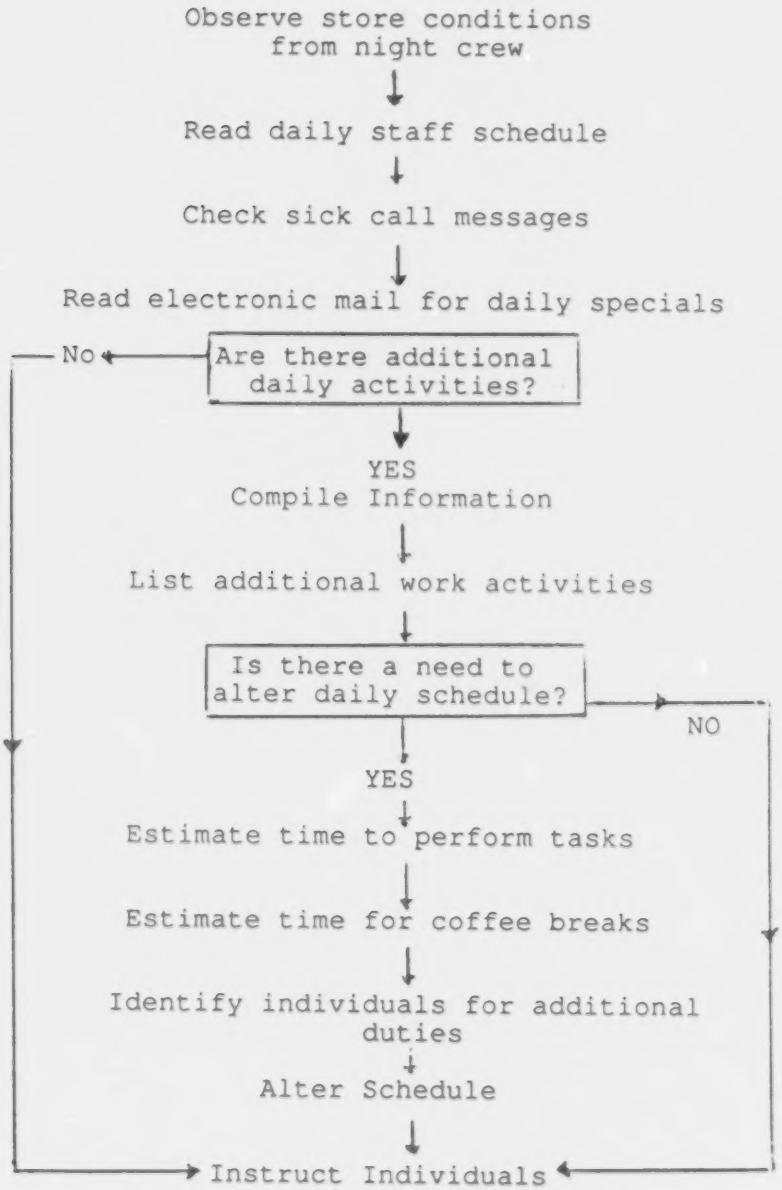
	1	2	3	4	5
difficulty	very low	low	moderate	high	very high
importance	very low	low	moderate	high	very high
frequency	very low	low	moderate	high	very high
special training required	very low	low	moderate	high	very high

WORKSHEET 6

Flow Chart Technique

Task 1

ASSIGNING DAY STAFF DUTIES



Example 3

Using Literacy Task Analysis to Identify Training Needs for Key Personnel

(Retail Sector)

The Receiver in a grocery store, as the title indicates, is responsible for receiving virtually every article which comes into the store. It is a key job since without effective management of this function stores may face poorly stocked shelves and dissatisfied customers.

The analyst visited the receiver three times - once for a preliminary interview which took place in the Store Manager's office, once for an observation which took place at the Receiver Docks and Stockroom, and again for a brief "verification" interview on a separate occasion to pursue a few questions which lingered after the interview and observation notes had been written up.

The literacy task analysis which was performed on this job used the *interview-note technique* and *observation* with additional elements from the *job function* and *risk assessment techniques*.

The interview and observation supplied the core information of major tasks and sub-tasks from which a job description of the position could be prepared. The very detailed sub-tasks which were listed for each major task provided even more essential information, however, since it is the analysis at the sub-task level that is most pertinent for determining what skills from the Basic Skills Profile are most relevant to a particular job.

The *Job Function Technique* was particularly revealing when applied to the job of Receiver. The *Job Function Technique* shown on WORKSHEET 7, page 53, describes job functions or tasks under the categories of Information Functions, People Functions and Things Functions. When examining the job from this perspective, it became evident that the success of the job was very clearly related to "people" functions, in that a large proportion of duties related to the receiver's interface with truck drivers, delivery personnel and stock persons within the store. Had this method not been applied to the job, the analyst could well have missed out on perceiving that the job was a "people " job. On the surface, the job had appeared to be a "things" job, with the worker's main interface being with merchandise! Clearly, literacy task analysis can

provide new insights on a job, insights which can be used to target training to appropriate aspects of the job. Without this insight training could have been directed toward forms and merchandise coding rather than towards the more relevant area of building literacy skills within the context of interaction with others.

The other major finding which came out of the literacy task analysis was the extent to which "sequencing" - carrying out tasks in the right order - was central to the receiver job. This was evident in the observation and verified in the post-observation interview. With such a large number of shipments arriving each day, inattention to appropriate sequencing of activities could result in a chaotic receiving area. This vital piece of information permits the analyst to design training materials for a basic skills class which will use simulated sequencing exercises to probe training needs in other skills such as reading, writing and problem solving. Thus an integrative approach to training is achieved in which the core literacy skills are dealt with in conjunction with other key basic skills required for effective job performance. Fuller details of the Literacy Task Analysis of the Grocery Store Receiver are found in the Technical Report.

WORKSHEET 7

Job Title:

Major Task Elements and Sub-Tasks

* ***Job Function Technique (JFT)***:

Beside each task and sub-task, place an "I", "P" or "T" to indicate if the task relate primarily to "Information", "People", or "Things".

		* J F T
Task 1.0		
Sub-Tasks 1.1		
1.2		
1.3		
1.4		
1.5		
Task 2.0		
Sub-Tasks 2.1		
2.2		
2.3		
Task 3.0		
Sub-Tasks 3.1		
3.2		
3.3		

Example 4

Using Literacy Task Analysis for Tranferability

(Construction Sector)

A literacy task analysis was used to compare two jobs in the construction industry - the pre-cast repair and cleaning labourer and the cement finisher. The *Job Learning Analysis Technique* as outlined by M. Pearn and R. Kandola supplied the basis for this comparison. The Grid, which appears in WORKSHEET 8 on page 57, is used both for the collecting and analysis of the information. This means that a separate interview at the beginning is not necessary since the technique includes the interview function.

This method describes jobs in terms of nine learning skills which contribute to satisfactory performance.

The nine ***Learning Categories*** are:

1. ***Physical Skills***
2. ***Complex Procedures***
3. ***Checking, Assessing, Discriminating***
4. ***Memorizing Facts, Information***

5. ***Ordering, Prioritizing, Planning***
6. ***Looking Ahead, Anticipating***
7. ***Diagnosing, Analyzing, Solving***
8. ***Interpreting/Using Written Pictorial and Diagrammatic Materials***
9. ***Adapting to New Ideas, Systems***

An examination of the nine learning categories reveals that many of them encompass important dimensions of basic skills. With the exception of caterogy one all of these elements can be located within the framework of the ***Basic Skills Profile***.

By comparing the two jobs with the help of the scoring grid, the analyst obtained information on how the skill requirements of the two jobs differ. Trainers can use this information to build training materials which emphasize the new skill requirements needed as a worker moves from the one occupational area to the other.

For instance, if the one job is intensive on memorizing facts and information and the other job is not, then workers going to the job where memorization is important could benefit from some training that helps to master this skill. If "*checking, assessing*

and discriminating" turns out to be a key function of one job and not the other, instruction can be aimed toward exercises of *"compare and contrast"* which focus on identifying change. In fact, there is every reason to believe that many workers will be moving from cement finisher to pre-cast labourer and vice-versa to respond to fluctuations in the labour demand or to respond to the desire for variety in work experience. Both these jobs are considered desirable and are at the upper skill levels of the labourer designation.

Once a profile or snapshot of these two different jobs in the construction industry has been obtained, one can look at the similarities and differences in the learning categories for each job. This will help to identify skill areas which are different and which may therefore be a subject for training emphasis. It should be pointed out at the outset that just because a worker is not using a certain learning category to a great extent on a particular job does not mean that he is unable to do it; it does suggest, however, that this area of unfamiliarity could well be an area where trainers could help trainees to become more familiar with a new area of work competence.

A full description of the method and how it applies to the pre-cast labourer and the cement finisher is found in the Technical Report which goes with this manual.

MAIN ACTIVITY No.	Description	TIME SPENT ON ACTIVITY	PHYSICAL SKILLS	COMPLEX PROCEDURES	CHECKING/ASSESSING/ DISCRIMINATING	MEMORIZING FACTUAL INFORMATION	ORDERING/PRIORITISING/ PLANNING	LOOKING AHEAD/ ANTICIPATING	DIAGNOSING/ANALYSING/ SOLVING	INTERPRETING/USING WRITTEN/PICTORIAL/ DIAGRAMMATIC MATERIAL	ADAPTING TO NEW IDEAS/SYSTEMS
1.			1	2	3	4	5	6	7	8	9
2.			1	2	3	4	5	6	7	8	9
3.			1	2	3	4	5	6	7	8	9
4.			1	2	3	4	5	6	7	8	9
5.			1	2	3	4	5	6	7	8	9
6.			1	2	3	4	5	6	7	8	9
7.			1	2	3	4	5	6	7	8	9
8.			1	2	3	4	5	6	7	8	9
9.			1	2	3	4	5	6	7	8	9
10.			1	2	3	4	5	6	7	8	9

Figure 4 *The Job-Learning Analysis Scoring Grid*

Source: Pearn, M. and Kandola, R. (1988). Job Analysis - A pratical Guide for Managers. Institute of Personal Management. Wimbledon, London. p.49.

Example 5

Using Literacy Task Analysis for Promotability

(Wholesale Food Sector)

This analysis took place in the fresh pork division of a meat packing plant which employs some 700 workers. Jobs range from those you would traditionally connect with meat packing such as butchering, cutting, boning and packing - to the supporting job of maintenance, welding, engineering and shipping.

The *Structured Job Analysis Interview* as described by M. Pearn and R. Kandola was applied to the jobs of hog pusher, butcher, and butcher supervisor. The purpose of analyzing these three jobs was to discover if the need for literacy and other basic skills increased as one progressed from job to job within the plant. Promotability was thus the main focus.

Pearn and Kandola (1988) have described the *Structured Job Analysis Interview Technique* as a **Do-it-Yourself JTR (Job, Task and Role) Method**. While not specifically designed for a literacy application, the 33 questions of the *Structured Job Analysis*

Interview cover many aspects of literacy and numeracy, and with minor modifications it can cover the whole range of concerns that you wish to address. The technique is easy to use and is an excellent method for managers to use who have limited resources to devote to hiring training consultants. The Interview Form is found at the end of this example on page 62.

The hog pusher is the employee who pushes lines of hog carcasses attached to a pulley. Nine to twelve carcasses are pushed along at a time on their way from the freezer to the cutting room where they are cut into pieces such as butts and New Yorks and then weighed. The meat moves along a conveyer past butchers who stand in position to do the various processes. The hog pusher is vital in this work since his job ensures that the production line does not slow down. A full description of the hog pusher's duties is included in the Technical Report.

The butcher interviewed for this analysis works in the cutting room and cuts up pork into side ribs, hams, New Yorks, middles and loins. There are some one hundred butchers in the cutting and boning rooms. The butcher supervisor interviewed is one of three line foremen in the Cutting Room. The Cutting Room has 97 employees and three foremen. As with the case of the hog pusher, a full description of the butcher and the butcher supervisor duties appears in the Technical Report.

Note taking during the interviews permitted the interviewer to obtain a good record of the major elements of the three jobs, from which conclusions could later be drawn. Even though there is at present little transferability between jobs - and even less upward mobility - the potential does exist to move from hog pusher (which requires strength) to a butcher and possibly butcher foreman. The butcher job requires less strength and more skill, and since it is an apprenticeable trade in Canada, there is a certain amount of book learning regarding the various cuts and their characteristics which could be part of a butcher's training. It must be said, however, that the butcher trade can concentrate on an almost total "hands on" approach which requires little reading.

There does not appear to be a large number of traditional literacy skils required for either the hog pusher or the butcher. Both jobs require teamwork and the ability to work quickly (as one would expect in what is basically a production line operation). It seems that the point at which significant incremental literacy skills are used is at the butcher foreman level.

It was interesting to discover that the literacy task analysis of the three jobs of hog pusher, butcher and butcher supervisor

identified a real skills ladder, with clear progression of literacy needs as one progressed from job to job. It was also clear from talking to employees that some of them at least would like to seek promotions and one person interviewed had in fact been promoted and was looking for even more new challenges.

By using the ***Basic Skills Profile*** as a core resource when analyzing the results of the literacy task analysis, one can avoid a focus which places undue reliance on forms, bills of lading and the like without giving attention to areas such as problem solving and critical thinking. Once the need for team work skills, problem solving and effective time management are identified through the ***Structured Job Analysis Interview***, then an approach to training can be devised in which exercises and simulations centre on the core literacy and numeracy skills while at the same time adressing the related skills in the ***Basic Skills Profile***.

The simple ***Structured Job Analysis Interview*** method will be an easily used vehicle to analyze specific jobs and to create a skills ladder. The approach is also adaptable enough to be readily extended to an analysis of other jobs should the company decide to extend the analysis to other job departments or divisions.

STRUCTURED JOB ANALYSIS INTERVIEW

Place in the organization

1 What is your job title?
2 What department do you work in?
3 What jobs are immediately above yours?
4 What jobs are immediately below yours?

Main objective

5 What do you see as the main objective of your job?

Main duties

6 (a) What are your main duties/activities?
(b) How important are each of these to your work?
(c) What proportion of your time do you spend on each of these duties?

Duties and responsibilities

7 (a) What tools and equipment do you use?
(b) What do you use each of them for?
(c) How important are they to your work?
(d) How often do you use them?

8 (a) What aspects of your work require physical effort, i.e. carrying, pushing, pulling?
(b) What do you have to do?
(c) What sort of weight/force/pressure is involved?
(d) How often do you have to do this?

9 (a) What written materials do you use as sources of information, e.g. notes, reports, articles, etc?
(b) What do you use them for?
(c) How important are they to your work?
(d) How often do you use them?

10 (a) What writing do you do, e.g. reports, letters, memos?
(b) Who do you generally write to?
(c) Generally, what is the content of the written work?
(d) How do you decide what you have to write?
(e) How often do you have to write things?

11 (a) What materials do you use involving figures, tables of numbers, etc?
(b) What do you use them for?
(c) How important are they to your work?
(d) How often do you use them?

12 (a) What figure work/calculations do you have to do?
(b) What do you have to do it for?
(c) What is the highest level of arithmetic you require (e.g. working with decimals and fractions, algebra, etc)?
(d) How often do you work with figures?

13 (a) Do you use graphs, pictures or pictorial materials in your work?
(b) What do you use them for?
(c) How important are they?
(d) How often do you use them?

14 (a) Do you ever have to produce maps/charts/diagrams, etc?
(b) For what reasons?
(c) How often do you do this?

15 (a) Which aspects of your work, if any, require you to work accurately?
(b) What would the consequences be if you were not accurate in those areas?

16 (a) What other sources of information do you use in your work?
(b) For what reason?
(c) How important are they?

17 (a) Are professional qualifications required for this job?
(b) What level of education is needed to be able to perform this work?

18 (a) Is previous experience required to perform this job?
(b) If yes, what sort of experience is required? Be as specific as you can.
(c) Why do you think that?
(d) What is the minimum amount of time in which a person could have obtained such experience?

19 (a) How much supervision do you receive?
(b) How much contact do you have with your supervisor?

(c) How does your supervisor know if your work is up to standard?

20 (a) How many people do you supervise?
(b) What does that involve?

21 (a) How do you decide the order in which to carry out your work? (i.e. is it predetermined or are you free to set your own priorities?)

22 (a) What planning or organizing do you have to do?
(b) What do you have to do it for?
(c) How important is it to your work?
(d) How often do you have to do it?

23 (a) How responsible are you for the safety of others?
(b) What does this involve?
(c) How important is this?

24 (a) What sorts of assets, material, money are you directly responsible for?
(b) What does this involve?
(c) How important is this?

Contact with others

25 (a) What people do you come into contact with in the organization?
(b) For what reason?
(c) How important is contact with each of these people?
(d) How often do you come into contact with each of these people?

26 (a) What people from outside the organization do you come into contact with?
(b) For what reason?
(c) How important is contact with each of these people?
(d) How often do you come into contact with each of these people?

27 (a) Is there any negotiating/interviewing/training/public speaking involved?
(b) For what reason?
(c) What does it involve?
(d) How important is it?
(e) How often do you have to do it?

28 (a) What are the major forms of contact (e.g. personal contact, telephone, letters, memos, etc)?
(b) How important are these forms of contact?
(c) How often do you use them?

Physical environment

29 (a) Is the majority of your work indoors or outdoors?
(b) What proportion of time is spent indoors/outdoors?

30 (a) How many people do you work with most of the time?

31 (a) What are the physical conditions like (e.g. light, heat, space, etc)?

32 (a) To what extent do routines and procedures have to be followed?
(b) For which activities?
(c) How much time do you spend working under such routines and procedures?

33 (a) What are the prospects for future development?

Extract from:

Job Analysis, A Practical Guide for Managers, Pearn, M and Kandola, R., Institute of Personnel Management, Wimbledon, London, 1988, p. 126-129

SECTION 4 Choosing a Method

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Practical Issues in Choosing a Method

Choosing a method of literacy task analysis which suits your particular situation is not as difficult as it may seem. Your choice will depend on a number of factors. Among these factors are:

1. **The Reason for the Analysis**

   If you are conducting a literacy task analysis from the perspective of transferability of workers from one job to another, you will want a method which clearly identifies skill gaps between jobs. If, on the other hand, you are helping trainees learn new literacy skills within the same job, then you will be seeking a method which looks more intensively at the various tasks that make up the job.

2. **The Dynamics of the Workplace**

   If the company and the union display a high level of commitment to the process and are willing to give you a high degree of access and autonomy within the workplace, you will then have the flexibility to utilize some of the techniques that allow the employee to take a more active role in the analysis. If, on the other hand, you sense some reticence

or nervousness about disruption of the work processes, you will want to choose some of the quicker, simpler methods so that you do not wear out your welcome. Alternatively, you may decide to use a method which focuses on the analysis of workplace documents.

3. **The Level of Expertise**

All of the techniques mentioned here can be carried out with relatively little training. If you have limited experience in collecting and analyzing job information, you will probably prefer a method which includes interview questions and forms and worksheets to help record information.

One of the greatest challenges in carrying out a literacy task analysis is in knowing what job information is relevant for your final basic skills analysis which actually provides the direction for the development of the training plan. Every attempt has been made in this manual and the companion technical report to outline only those techniques which are easy to use and provide results which help a trainer develop the program.

4. **The Number of Jobs to be Analyzed and Workers to be Trained**

Decide on how many jobs you want to analyze, and if these jobs can be viewed in clusters. If you are looking at a scale of promotability for a cluster of three or four jobs, you will want to use the same method of analysis for the jobs in that cluster. This will lead to greater comparability among the jobs. A cluster of jobs can be defined according to criteria which you yourself set, such as jobs which seem to lead in a career progression ladder, jobs between and among which transfers are likely or jobs which are likely to experience technological change.

You will also want to decide on whether it is desirable to target your analysis to jobs where there is a critical number of workers who require training. If there is a job with one sole incumbent who is unlikely to be looking for a new job in the foreseeable future, it may not be logical to examine that job. Rather, you may want to analyze jobs where there is a large number of workers or prospective new entries to be trained. Companies and unions will be more enthusiastic about the analysis if they can see a possible end product - such as the development of training approaches and materials for a number of employees who require the same training.

5. **The Degree to Which Training Materials Are Available**

You will want to look at the extent to which training materials are already available for workers in the category you wish to examine and the extent to which technical training is already being delivered.

If detailed and comprehensive training materials are already available, it is unlikely that the company will discard all those materials simply because you are now there with a new approach. It may be, however, that the materials, while excellent from a technical training viewpoint, do not integrate literacy components such as problem solving critical thinking, and team work skills.

In choosing a method, you will want to know whether your training approaches will be folded into existing training initiatives or will be totally independent. If it will be the latter, you will want to choose a method which will give you detailed information about the jobs analyzed. If your analysis will be collapsed into other training materials, however, you will not need as much detail.

6. **Suitability for Use by Others**

When choosing a method, keep in mind that after you leave the workplace other persons may have to carry on where you left off. On the other hand, you may be responsible for both the actual development and delivery of the training plan. It is important to have this aspect clarified at the very beginning of the partnership.

If you have been asked only to do the analysis and point in general directions for training, you will then need to pass along your analyses and recommendations for training to others in the service delivery area. This may not be an easy task if this element of the partnership has not been clearly stated in advance. In choosing a method for analysis, keep in mind that your information may become a resource for future service deliverers. If methods not suited to the purpose of the analysis are chosen or if the reporting of tasks has been inadequately detailed, then the literacy task analysis will probably end up on the shelf rather than being used.

Choose a method and a style of reporting details which will be suitable for you to turn over to another person or institution for program delivery should that need arise. It is also important to ensure that you have the opportunity to brief the service provider as to how the results of the analysis can be used for training purposes.

7. **The Complexity of the Job**

If the job has a few main duties and is relatively straightforward, you will choose a method which does not get into minute detail but which captures essential information about the basic skill requirements. If the job has a great many job duties and functions a more intensive method will be needed with more time spent determining which duties are most important for the analysis.

8. **Accommodation of the Method to the Situation**

If you choose a method which includes interviews with several experts or trainers who may differ considerably in their ability to give incisive information about jobs , make sure that the method is flexible enough for you to use with such disparate individuals, yet rigid enough to permit comparability.

Remember, too, that if the jobs you are analyzing are staffed exclusively by immigrant workers with little linguistic ability in English or French you will need to choose a method which focuses more on observation than on interview. The literacy task analysis which you complete will have applicability to the ESL environment as well as literacy applications.

Choosing a Literacy Task Analysis Method to Suit Various Situations

Literacy task analysis can be adapted to fit many different situations. This adaptability is an important feature of literacy task analysis since no two workplaces are alike.

What is it that makes literacy task analysis so adaptable?

That question can be answered by looking at three major aspects.

1. the great number of task analysis methods which can be modified to understand the literacy demands of the workplace, some of which are described in this Manual;

2. the differing complexity of the various methods, allowing analysts to choose a very general or a very specific application depending on the scope of the jobs to be analyzed;

3. the comprehensiveness of some methods which can lead to training approaches targeted to specific jobs, and the flexibility of others which permit the analyst to spin a web which encompasses several jobs and which highlights similarities and differences.

Literacy task analysis relies upon a context to give it meaning. Without that context it is merely a stream of ideas which have not cut out a channel in which to express themselves. The situations which follow provide a variety of contexts for literacy task analysis. These situations are drawn from real workplace experiences and indicate the ways in which methods are appropriate to the specific circumstances of diverse workplaces.

The situation in which you will be working may be similar to one or more of these examples, or it may have different dimensions. The important thing to remember is that the adaptability of literacy task analysis gives you the opportunity to use it creatively and to mould it to what will serve best in your working environment.

SITUATION ONE - Diversifying Job Functions

You have been called in by a company manager who is interested in transferring employees from the old style, single duty production line to a more skill intensive and diversified job which requires working on a variety of steps in the manufacturing process.

The company may be old but the challenge at hand is new. The company has relied heavily on the production line process and has limited experience in having employees work on a variety of seemingly unconnected duties. Chances are that when these workers were hired the company was looking at their ability to perform single function jobs, and literacy competence was not really examined in an in-depth way. In this situation you will want to know just how much reading, writing, computation and problem solving is necessary to handle the new clusters of job functions. You will then see whether employees have transferable skills and if they do not seem to have them you will design training to address gaps which have been identified through the analysis. You will thus be able to target training to relevant areas rather than implementing a "hit and miss" approach.

In this situation the Interview-Note Technique and the Job Function Technique may be appropriate (married, of course, to observation). The Interview-Note Technique is essentially an interview with a highly competent performer during which the analyst records tasks and sub-tasks with particular attention to those which are central to the job's purpose. The Job Function Technique identifies job functions and categorizes them as they relate to information, people and things.

The Interview-Note Technique will give you comprehensive information on a job - sufficient for you to record major task elements and sub-tasks, while the Job-Function Technique will enable you to determine what interface between technical and machine functions and people oriented functions are called for in the new diversified jobs. You will then have sufficient information to apply the Basic Skills Profile to all the information you have gained.

SITUATION TWO - Improving Customer Services

The owner of a small business has decided to improve the quality of service to his customers. He can't really put his finger on how to do this but he knows that dealing with the public is vital to his business. Although his non-unionized shop has but a handful of employees the owner has a reputation for treating his workers like members of a family.

One of the first steps in conducting the literacy task analysis in this business is the initial interview with the owner. In his request for assistance the idea of a literacy problem may not have entered his mind. However, in this case the trainer already has some indication of the basic skill categories that may require updating. In the interview it will be important to help the owner identify some specific areas or tasks where he perceives a need for improvement in the quality of service. In addition it will be useful to ask the owner who he thinks is dealing with the public effectively. In a subsequent interview with that employee the trainer should begin to ask questions about the parts of the job that have activities of "dealing with the public". This will

provide a clear indication of what types of job duties should be observed. Using the observation interview technique which allows for both observation and questioning the trainer can begin to record how the employee actually "deals with the public".

Once this job information has been collected, a straightforward way of organizing it is to use the task matrix technique. In a basic chart form, the trainer lists all of the major duties along one side of the sheet and all the competencies or skills related to dealing with the public across the top of the chart. This will help both the employer and employee verify the information collected from the observation-interviews. Once this chart information has been checked the trainer can begin to break down each of the competencies into steps using the task description technique. This will provide a way of looking at each element of a duty that requires some kind of skill relating to "dealing with the public". Using the Basic Skills Profile this information may lead into the development of a short-term training program for all shop employees on Listening and Oral Communication Skills focussing on the actual tasks of the different job duties.

SITUATION THREE - Extending Decision Making

This company has a large number of immigrant workers who have been on the same job for several years. The company wishes to institute a more collegial, employee based method of quality control which will require some training in problem identification and joint decision making, but is worried that employees may lack the basic skills required to benefit from the training.

In this situation you are not looking so much at literacy skills required for production processes (as in Situation One), but rather at skills required to facilitate horizontal, co-operative management. You may be interested in the process elements of the jobs only to the extent that quality control aspects are present. You may want, therefore, to conduct a less intensive analysis than in situation one - an analysis concentrating more on the decision making and teamwork aspects than on the "nitty-gritty" of technical processes.

The Structured Job Analysis Interview, as outlined by M. Pearn and R. Kandola, may be suited to these circumstances. The Interview should ideally take place after a limited period of observation.

The strength of the Structured Job Analysis Interview is that questions can easily be modified by the interviewer to suit the particular situation. In this situation, since joint decision making and problem identification may involve cross-cultural contacts and more intensive contact between workers from differing linguistic backgrounds, you will want to take care to develop well the part of the interview dealing with contacts and teamwork.

The Structured Job Analysis Interview is described by M. Pearn and R. Kandola as a Do-it-yourself Method. As such, it can easily be used by managers or their designates with little training and time. While it does not replace more sophisticated methods, it does provide an effective overview of how jobs are done and what combination of skills are required to carry them out.

SITUATION FOUR - Bridging the Skills Gaps Between Jobs

The union has called upon your help after being approached by workers who are interested in getting access to new job opportunities in areas which are related to their present work in only the most general of ways. These workers want training for the specific skills they will require to bridge the gap between the present job and the desired job.

In Situation One we were looking at transferable skills as new elements were added to jobs. In this situation we are looking at transferable workers. Rather than doing a full scale literacy task analysis of dozens of jobs, you can take a comparative approach, analyzing only those jobs for which transferability is desired or likely.

Take for instance two jobs in the Construction Sector - pre-cast repair labourer and cement finisher. The analysis of these two jobs identifies the incremental or differing skills required for a worker to move from one of these two jobs to the other. This kind of analysis is done when there is a sudden need for more of a particular category of worker or if workers regarded the target job as a step in their career mobility.

The Job Learning Analysis Method is described in a Case Study 3 in the Technical Report. Basically, it describes jobs in terms of learning skills which contribute to the satisfactory performance of the job. The Job Learning Analysis Scoring Grid is used to create a matrix, with the description of the job's main activities appearing vertically and the Learning Categories (nine in number) appearing horizontally. When the grid is used to collect information on two jobs, a comparison can then be made, focusing on the major learning categories required for each job. If, for instance, the analysis shows that workers in the one job are often required to look ahead and anticipate in order to foresee problems and to take corrective action, then training for this job will require some "cause and effect" situations to hone this skill. If one job requires careful ordering, prioritizing and planning (and the other does not) then workers moving from one job to the other may require training in making sequencing decisions and in planning ahead. Literacy training can be tied to these skill categories, with targeted exercises.

The Job Learning Analysis Method is easy to administer, requiring an hour or so of time from trainers or competent performers in two or more jobs which are to be compared. As with other techniques, analysis is easier if observation has taken place.

SITUATION FIVE - Moving Through Company Ranks

A medium sized company wants to set up another branch of the business in a different area of the city. They are interested in making some of their employees with good interpersonal skills floor supervisors in the new branch. However existing training programs are not specific enough for their type of business operations. In addition the educational background of these potential supervisors range from little formal education to a grade 11 obtained several years ago.

In this situation the interview with the employer is crucial in order to determine the kinds of basic skills required to do the job of a floor supervisor and to find out who is presently perceived to be a competent supervisor. Since many of the job skills have to do with interacting with a small group of workers, rather than observing right away, it may be advantageous to have the competent supervisor record his major activities in a daily log or a small pocket notebook. This can be done over the period of a week using appropriate time intervals in a day. From this job information the trainer can get a good indication of the tasks required to supervise a team.

It may be useful at this time to find out from the floor supervisor how important, frequent and difficult it is to learn these major job tasks and related skills. This exercise is called task criticality. Once this has been determined the trainer may want to observe those specific tasks looking for the types of workplace basic skills such as those indicated in the Basic Skills Profile. As a final step in the literacy task analysis the flow chart technique may help organize the job information. In using this technique it is possible to describe a simple behaviour path of the different steps required to make decisions which are a vital part of the floor supervisor's job. In a step-by-step fashion each of these actions can then be viewed in light of the basic skills required for important, frequent and difficult to learn supervising tasks.

SITUATION SIX - Establishing Criteria for Staffing

A brand new small firm is in the process of being established and the president has assembled a small management team. The company has not yet ascertained the complex web of interrelationships between jobs and among functions within a job. The company wishes to use literacy task analysis as a method for establishing staffing criteria for workers yet to be hired.

This situation differs considerably from the others described. You probably don't even have the most basic of job descriptions - let alone a clear idea of how the various jobs will intersect. You need to start at square one, but you do not have the advantage of looking at real life situations as they have evolved within a specific company. You will need a more abstract approach, centering on imaginary or "best guess" scenarios.

A main goal will be to identify the skill requirements needed for various jobs. Really, what you are looking at here at the outset is JOB analysis rather than TASK analysis.

Ask the company president to determine a probable organization chart for the firm. Then collect materials from outside sources which may be relevant, for example: job descriptions from the Canadian Dictionary of Occupational Titles, instruction manuals for machinery and equipment which are likely to be used within the new company and safety information on possible workplace hazards. If the new company will be dealing with dangerous chemicals or explosives this will be especially important. These materials can be obtained from suppliers with whom the new company is likely to deal rather than from competing firms who can probably be counted upon to be uncooperative.

Once you have examined a probable organization chart and established the degree of complexity which employees will likely meet in regard to manuals and other materials used in the workplace, you will be ready for writing up some probable job statements, followed by task statements. The resulting descriptions can then be examined from the perspective of the Basic Skills Profile. You may want to finish off with the Job Function Technique (information, people, things) in order to point the new managers towards criteria for staffing based at least partly on analysis rather than on complete guesswork.

Despite the inexactitude of literacy task analysis in this particular situation , you will have performed an important role by helping managers to judge the types of qualifications that they should be seeking in job applicants.

Some Guiding Principles in Choosing a Literacy Task Analysis Method

* The initial interview with the employee, employer or union representative can provide a good indication of the range of basic skills required to perform job tasks.

* Verification of the analysis results by an employee is crucial to a literacy task analysis exercise. Organizing job information obtained from interviews, observations and work documents in the simplest manner will help in this process.

* Some methods used in the larger field of job and task analysis can be modified to suit the purpose of a literacy task analysis.

* Using job information charts and forms helps the analyst understand the specific basic skills needed to develop job-related training programs.

* Identifying the most important, frequent and difficult to learn job tasks provides a clear direction on how to proceed with the basic skills analysis.

* Writing task statements in terms of basic skills helps develop useful job descriptions for entry level workers.

Study Questions

1. Look at the eight factors which will help you to determine a suitable method of literacy task analysis. Which factors are most significant for the workplace you will be entering?

2. The six situations presented in this section provide a variety of contexts in which literacy task analysis may take place. How would you describe the situational context of your workplace?

Key points

* The reasons for conducting a literacy task analysis are important to consider when choosing a method. The method which is most useful for assessing skill requirements for job transfers may not be the most appropriate if training for new hires is your main goal.

* Literacy task analysis provides a variety of methods and approaches. This variety gives a high degree of flexibility in responding to the unique needs of diverse workplaces.

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SECTION 5 Helpful Hints for the Task Analyst

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Tips for Conducting Effective Interviews

The interview is an essential element of most literacy task analysis exercises. An interview with the employer or management contact is a necessary prelude to interviewing the employee whose job you wish to analyze. If the workplace is unionized, this initial meeting should include the shop steward or other union representative. When the employee interview takes place it will thus be seen within the context of this scene setting discussion.

At the initial interview with management and union you will be explaining literacy task analysis and how it fits into a workplace training program. You will also be soliciting information on the nature of the workplace - its degree of technological change, the education background of workers and the types of training already available. The management and labour perspective of where basic skills gaps are most critical will help you to recommend the division of the company which would be most suitable for a literacy task analysis.

Quite often, the particular situation within a company will dictate what jobs to analyze. For instance, if recent automation has occurred within one division, that division could well be

selected. There could also be some external motivating factors which may not be readily apparent, such as the desire to compete more aggressively with other companies on a particular product line, or quality control considerations impacting more heavily on one part of the work process than on others.

You as the analyst, and the company and union as the body inviting you into the workplace, will be able to jointly determine which jobs could most usefully be analyzed in terms of one of the main goals of literacy task analysis - namely learning the job and new job tasks, transferability, and promotability.

Here are some suggestions for the <u>preparatory stage</u> to the interview with the employee whose job has been selected for the literacy task analysis.

1. Keep in mind that a literacy task analysis analyzes the job rather than the incumbent. Therefore you will want to interview and later observe a highly competent performer. The reason for this is that you will be looking at the various basic skill levels required to do the job when it is well done. From the knowledge so gained you will be able to develop a training approach which gears training toward attainment of specific competencies.

2. Once the company has selected the employee for you to interview, you will be ready to make arrangements for a suitable time to interview that person. Be sensitive to the worker's schedule. Find out if there is a particular flow to the employee's work which would make one day of the week more suitable than another. After all, you want the worker to be relaxed for the interview, not clock watching to get back to the work station quickly.

3. In addition to setting an interview time with the employee, make sure that you clear the interview with labour and management representatives. Ideally, they will inform workers of the purpose of your visit beforehand. This is important since co-workers of the employee you are interviewing may see you conducting the interview and wonder what is happening. Workers feel threatened when they are kept in the dark about events around them.

4. Choose the venue for the interview carefully. Sometimes the interview with the employee will take place right on the job site, before or after an initial period of observation. At other times, the interview will take place in a private area away from the immediate job site. This area should be on

"neutral" ground, avoiding the formality of a manager's office where the desk may form a barrier between you and the employee.

5. If you choose an "off-site" location for the interview, gauge the setting to what you think would be most appealing to the employee. While it may be tempting for you to interview the employee "over lunch", the employee may not feel comfortable meeting with you in a restaurant setting.

6. If you have chosen an "on-site" location, make sure that this choice will be suitable for the specific job you will be analyzing. If the worksite is at all dangerous or noisy, you may want to reconsider the idea of holding an interview there. The main advantage to using the job site for the interview is that if there is machinery or equipment on site to which you wish to refer, you can easily do so. Once you have left the site you may run into difficulties in questioning if you don't know the names of the various types of equipment and their parts.

7. Prepare for the interview by making some basic decisions about whether it is to be structured or flexible and open ended. The decision which you make will determine the kinds of questions you will ask.

Now that the preparatory stage is complete, it is time to move on to the actual interview.

Whether you hold the interview on or off the work site, here are some points to keep in mind.

1. Be prompt for the interview. The employee may have planned the day to accommodate your expected arrival time.

2. Time your interview so as to minimize disruption. This will be particularly important if the job has some production line elements. Be ready to re-schedule if some crisis has erupted which this employee must handle.

3. Dress appropriately. If the interview is to be on site, remember that the more you "blend in" the more accepted you will be. For women, this may mean no high heels and a conservative style of dress. Men will want to avoid flashy, sophisticated suits and ties if they are going into blue collar areas.

4. Come prepared for whatever you may need for the interview. This will include note pads with fixed pages so that you will not lose or misplace pages. You may be writing fast, so make sure that you have extra pencils or pens.

5. Some interviewers may feel tempted to take along a tape recorder for the interview. Be aware, however, that this can have several disadvantages. A tape recorder can be intimidating to a worker and may inhibit frankness. Also keep in mind that the time it takes to conduct an interview will be replicated on your tape. You will probably find it easier to decipher quickly taken notes than to listen to the totality of a tape and transcribe.

6. When beginning the interview, make sure that you explain its purpose in a clear, straight-forward manner. This means that you yourself must have a clear idea of why you are looking at that particular job. Is it for learning the job or new tasks? Transferability? Promotability?

7. Make sure that you don't fuel false expectations in the interview. Interviewed employees may take your presence as a sign that they will soon be signed up on a training course. This may not be the case, since the purpose of the literacy task analysis may be to identify training requirements for new hires rather than being targeted toward the persons you are interviewing.

8. Move from simple questions to more probing ones concerning specific job functions. For instance, "What kinds of reading skills do you use to perform that function?" "How do you go about problem solving when everything does not go quite as expected?" "Do you use reading, writing or mathematics to correct problems? To what degree of complexity?"

9. When concluding the interview, make sure the employee is aware that you will be calling upon him again to clarify any points which you deem necessary after you have written up your interview notes.

How to Observe Effectively

Like the interview, observation is a key element of the literacy task analysis process. The analyst gains insight into the job by observing how it is actually done and how the employee interacts with other workers or with the public.

The observation is a vital complement to the interview. It is advisable to do the observation after an interview, preferably on a different day so that you are not taking up too much employee time at once. The value of doing the interview first is that the worker will be more at ease being observed if he has met with you in advance and learned your goals for the observation. Also, you will have a general idea from the interview of what the job is all about, so it will be easier for you to understand its various dimensions.

You will want to do a brief follow-up interview with the employee on yet a separate occasion once you have drafted your notes for analysis to make sure that you have represented the job and its basic skills accurately. Thus you will be seeing the employee three times, first for the familiarization interview, then for the observation and finally for the follow-up interview. In the event that the job is one in which duties vary considerably from day to day you may choose to do an observation on two occasions rather than one so as to capture more elements of the job.

While your observation will give you a great deal of information on many detailed technical aspects of a job, keep in mind that you will be looking primarily for how the basic skills categories presented in the Basic Skills Profile are reflected in the job.

Here are some pointers for the observation phase.

1. Be ready to respect the workplace environment. Don't forget that you will need a hard hat and steel tipped construction boots on a construction site. Don't be surprised if you are asked to wear a hair net and a white coat in a food processing facility. It would be advisable not to wear bracelets, chains or long ties or scarves which could get caught in machinery.

2. Realize that there are limitations to what you can do when observing a job being done. If you are required to climb a ladder to see a particular worker and if you are afraid of heights, look for an alternate way to analyze this job. See if there is another worker doing the same type of work on the ground floor, or concentrate on an interview. It may even be possible to observe the worker from a "safer" if more distant location.

3. Before starting the observation, discuss with the employee if it is preferable to ask questions at the end of the observation period or throughout as the different job duties and functions are being performed.

4. Be as unobtrusive as possible during the observation. Refrain from controlling the worker's agenda by asking at the outset for a demonstration of how a particular function is done. Although you might feel more secure if the worker is doing what you want to observe, this is a serious interference with the natural flow of the observation and will create a distortion of the results.

5. Take notes discretely, noting short cryptic points which will be more fully elaborated after the observation. If you are writing copiously, it may make the worker nervous, and also, it will detract from your observation of additional details.

6. Be respectful of the worker's time. Observation ideally will not take longer than one or two hours per employee. While you may not see every function performed, this time frame will give you most of the information you need for a literacy task analysis.

7. Transcribe your notes from an observation within a day of the event while memory is fresh. Make sure that you write down the name of the person interviewed and find out how you may reach this person for clarification of points should the need arise.

8. When talking to management and union personnel after the observation make sure not to say anything that could put the work or attitudes of the employee observed in a negative light.

Selecting Documents from the Workplace

There are several junctures at which you may wish to select documents from the workplace to help you in a literacy task analysis. You may wish to examine some general workplace documents before you actually begin. Management and union officials could provide you with a cross section of workplace documents. This could include:

* safety brochures, employee handbooks, collective agreements, newsletters;

* code sheets or specifications;

* forms such as job orders, inventory or driver trip sheets, customer complaint forms, injury report forms;

* print outs such as those required for electronic mail;

* technical texts such as manuals, repair books and operating policies.

Here are some practical suggestions in regard to the workplace documents you have selected.

1. If there are technical manuals specific to particular jobs, you may want to examine these documents in detail after you have interviewed or observed a competent job holder. It's best if you can go into an interview or observation with a clean slate and as few preconceived opinions as possible. The technical manuals will be resources which will help you to make sense of what you have observed.

2. When you do select documents from the workplace, have a clear idea of how you want to use them. You will probably be looking at them from several perspectives. They will tell you much about the technical requirements of a job. They will also show you the complexity of the vocabulary, thus giving you a clear idea of whether simplification of wording and presentation is warranted to facilitate workers' understanding.

3. Be eclectic. It may be that a particular worker's most important workplace reading isn't in book, manual or brochure form at all. It may be that sacks and labels will be the

most important "documents" that a worker reads. Look too at the kind of reading which is found on calibrated instruments and measuring devices commonly used by workers. Be a detective! The most vital information may be veritably underfoot rather than on a bookshelf or in a worker's work area.

Study Questions

1. What are the differing purposes of the employer and the employee interview? How would you prepare for each interview?

2. What can you do to make the employee feel at ease during the period of observation?

3. How will an examination of workplace documentation facilitate your literacy task analysis?

Key Points

* The employer interview is a necessary first step before you begin a literacy task analysis. This is the time that permission is granted for you to enter the workplace and a climate of co-operation is established. If the workplace is unionized, the employer interview should include a union representative.

* Literacy Task Analysis analyzes the job, not the incumbent. Select a highly competent performer to interview since you will be looking for the basic skills required when the job is done at a high level of expertise. Training can then be used to set functional competency levels for various skills.

* Ensure that you are non-judgmental when interviewing and observing and that your observation does not interfere with work in progress.

* The combination of information from the interviews, observation and review of documentation will provide you with the detail you require to perform the basic skills analysis.

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SECTION 6 Building Partnerships and Getting Started

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Forging the Partnership

To be successful, a literacy program needs to draw upon the co-operation and expertise of various partners. Some partners will already know each other - such as the management and the union, for instance. But some partners may be new. The trainer or service provider may very well be a new partner drawn from an educational institution, a non-profit organization or a private consulting firm.

Establishing a partnership for literacy requires trust between or among the partners. This trust may not be automatic since often workplace managers, on-site technical trainers and union reps do not come into close contact with the new partner - the literacy service provider or trainer. It is necessary, therefore, for the management and union to think carefully about the kind of basic skills trainer who would be appropriate and who would fit into the workplace smoothly.

Here are some of the questions which the company and union may want to explore in their search for this new partner.

1. Does this person have experience in teaching adults?

2. Has this person had experience in one or more workplace settings?

3. Is this person adaptable to new situations and able to learn throughout the process?

4. Does this person have the ability to interact effectively with both labour and management and with individual workers of many backgrounds and education and skill levels?

5. Is this person open to listening and accepting the expertise of other partners?

6. Is this person flexible in terms of time and place for program development and implementation?

Once these questions have been discussed and resolved, it will be time to contact the potential trainer to explore service options.

Before cementing the partnership, it will be advisable for all partners to have a clear idea of what each section of the partnership will contribute to the success of the workplace literacy initiative. While the allocation and acceptance of responsibilities and activities will differ from workplace to workplace, here are some possible approaches.

1. **Management**

The company will have many roles.

The company will have responsibility for ensuring that:

* management at all levels are aware that an initiative which includes a literacy task analysis will take place and that a trainer will be on site in a variety of roles - as interviewer, as observer and as advisor on assessment and basic skills programming.

* division chiefs and foremen are aware of the purposes of the analysis and have some idea of the amount of time which may be called for in each department or division.

* key division heads know that a needs assessment may be an early requirement preceding the analysis and that they may

be called upon to answer a number of questions on matters relating to ethnic composition of the workplace, education levels, training opportunities, recent changes in technology or processes, and hierarchical vs lateral decision making.

* union representatives are involved immediately so that workers will feel comfortable with the proposed literacy initiative and will be able to express concerns or questions through a familiar channel.

In the case of a small company, the company responsibility will basically be the same except that there will be fewer levels of management to inform.

2. **The Union**

The union role is equally important as that of management, since it is the union who can make workers and their foremen feel comfortable with the idea that training is a benefit for all workers. If the union is unconvinced of the value of the partnership for literacy, this lack of enthusiasm or latent disapproval will be apparent and will stymy efforts that the trainer will be making to interview and observe.

The union will have the responsibility for ensuring that:

* workers know that the union is there to represent their interests in respect to training.

* workers know that the union provides a means for seeking clarification and reassurance if asked to participate in some way in a literacy task analysis, such as being the persons to be interviewed or observed.

* worker aspirations relating to transferability, promotability or on-the-job improvement will be served by the partnership.

In the case of a non-union environment workers will not be able to go to a union representative for advice and encouragement. Both the management and the training partner will thus have an additional responsibility to ensure that worker concerns about the training approach are addressed.

3. **The Trainer**

The basic skills trainer is the pivot in the partnership - the element which can bridge the interests of the management and the union and serve their needs while at the same time keeping in mind that the worker is the prime target to be benefitted.

The trainer will have the responsibility for ensuring that:

* both labour and management points of view are given full consideration and that one side is not favoured over the other when approaches differ.

* management and union are provided with information on approaches and options in sufficient detail to make decisions throughout the duration of the partnership.

* the issue of confidentiality is respected, with information provided to the trainer by workers being used for training purposes only with no individual comments about the company being fed back to either management or union.

* observation and analysis are conducted in a tactful, non-judgemental manner, and with the degree of sensitivity which will earn the respect of both the business and labour partners.

Overcoming Barriers

There are a number of barriers which may block the effective putting together of a partnership for literacy.

1. **The Barrier of Perception**

This barrier is based on:

* a feeling which may be held by both company and union that the educator is out of touch with the workplace and that the schools have already had a chance to provide basic skills and have failed.

* a feeling which may be held by the educator that the workplace is an unfamiliar and thus possibly a threatening environment with an excess of noise and dust.

This barrier can only be overcome when all partners put aside the stereotypes.

* Businesses and unions need to reflect on the fact that educators have more than structured classroom teaching in their repertoire.

* Educators need to take stock of their skills and realize that they can respond in innovative ways to needs which they will help to identify and resolve.

* Efforts must be made, as well, for these partners to meet on a more regular basis than just in the last minute duress of a hastily conceived alliance.

2. **The Barrier of Control**

Every partnership involves a balancing of each partner's interests. A true partnership involves each partner feeling comfortable about his role. When a partnership is new, however, there is often friction as to "Who's in charge?".

* If the company is the initiator of the literacy initiative, it will want to keep control.

* The union will also seek control in the effort to ensure that worker rights are fully protected.

* The trainer too may have goals related to a gut feeling of what will work and what won't.

The control issue can only be resolved if each partner is willing to make the kind of compromise which is required to be a team member. It is too late to resolve this matter half way through the partnership initiative.

The control issue can be resolved by:

* a frank discussion and possibly a formal agreement written with all partners' participation, such as the one discussed at the end of this section.

* all partners' meeting in committee as often as is necessary to keep the alliance strong.

3. **The Barrier of Access**

How does the company or the union find the "right" service provider? How do they find out what educational institutions and consultants are up to date on subjects such as alternate literacy models, and processes such as literacy task analysis? And - from the educator or consultant point of view, how do these experts know what workplaces would be amenable to a workplace literacy project?

The access issue is just beginning to be addressed.

* Organizations such as **ABC** Canada are seeking to network potential partners.

* Governments are holding public policy dinners and seminars which draw together business, labour and education, facilitating the exchange of information and the laying of the basis for workplace alliances.

* Literacy Institutes which include workplace aspects are beginning to evolve and these will lead to a greater number of professionals trained for the workplace and sensitive to business and labour concerns.

4. **The Barrier of Time and Cost**

* The literacy partnership in which the literacy task analysis takes place will involve the allocation of training dollars by the company for basic skills training.

* It will also involve the time of employees at various levels of the company - from the CEO who must show commitment, to the Human Resources Manager who must exhibit leadership and co-operation, to the division supervisor who must ensure that workers within the division are aware of what is required from them as the project unfolds.

* Union representatives will also be heavily involved as they seek to put forward union concerns as input to the partnership and as they seek to outline to union members what will be involved in the initiative. In effect, it will be up to the union to "sell" the worthiness of participating in the partnership. This will be done informally or through small meetings.

* There are also time and cost factors from the service provider's point of view - both for the development of the analysis strategies and the freeing up of time from other professional commitments.

There is no easy answer to how to overcome these two related barriers.

The barriers can be viewed within the framework of the following attitudes.

* Whether a company is big or small, unionized or non unionized, technologically developed or traditional, the economic argument will always loom large as a reason for curtailing training. Basic skills training is often the first to suffer.

* In times of economic uncertainty companies are often unwilling to invest in training which is not tied firmly to technical skills, and unions are often concentrating on the issues of adjustment.

Overcoming these barriers will require changes in attitudes. Both sides need to see how literacy task analysis can contribute to helping them to resolve their primary needs.

* If businesses and unions see literacy task analysis as a means of aiding employees in transferability, promotability and honing of the skills required in the present job, then they will begin to see this kind of training as an investment rather than a cost.

* They will begin to see that technical training and basic skills training are not discrete but rather are integrated skills, and that literacy task analysis is the way to move toward training approaches which recognize and build upon this interdependency.

How To Get Started

There will be varying ways to gets started with a literacy task analysis of specific jobs in the workplace. The stimulus may come from an adult education trainer or other service provider who desired to conduct workplace training. As more trained graduates emerge from workplace literacy institutes and other training initiatives, there will be more instances of educators' contacting businesses and unions to seek training opportunities.

Since businesses and unions themselves are now exhibiting a heightened awareness of literacy as an issue, the request for a literacy task analysis may come directly from them. Often, however, the business and union do not have a detailed knowledge of what techniques are available to probe workplace literacy needs and to design training programs. The business and union may indicate that they are aware of the need for basic skills upgrading but may be seeking guidance from the trainer as to possible approaches. It will thus be up to the trainer to explain what a literacy task analysis is and to outline its advantages and uses.

There are three areas which will be of particular importance in getting started and which will influence the degree to which literacy task analysis will be successful.

These areas are:

1. ***the initial meeting with the business and labour partners;***
2. ***the context of literacy task analysis within the total framework for training; and***
3. ***the Literacy Task Analysis Agreement***.

1. **The Initial Meeting**

In a unionized workplace, the initial meeting will probably include the service provider or trainer and a business and union official. The position of the business person may differ depending on the circumstances, but quite typically it will be someone from the human resources or personnel department. If both business and union area not in attendance at the first meeting, it would be advisable to ensure that the missing half of that dyad is brought on board by the second meeting, since misunderstandings erupt when one partner feels sidelined.

At the initial meeting, the company and union will give a situational overview of their workplace. They will provide information about the products or services offered by the company and outline the main processes and organization. They will indicate their perceptions of basic skills upgrading needs in the workplace, and in some cases how the ethnic composition and educational backgrounds of the workers impact on productivity and morale. The trainer will use this information to determine possible literacy task analysis approaches and methods which would be appropriate in that particular working environment.

Of course, the process of getting started will differ to some extent depending on the size of the company. If the company is small, there will not be a personnel department and the person you meet with will probably be the President of the firm. Since this person will not have executive ladders of approval to scale before deciding on a literacy task analysis initiative, you can expect an earlier response from a small company than from a large one. With fewer workers to choose from, it will be easier to decide on the most appropriate jobs to analyze. On the other hand, the small company will probably have more limited funds to devote to training and will want to ensure that money for the analysis is spent frugally.

The process will also differ depending on whether it takes place in a unionized or a non-unionized environment. In a non-unionized environment there will be no one at the initial meeting to specifically highlight and represent worker rights and morale - areas of traditional union concern. This means that the trainer will have to be very much aware of these areas and be ready to probe the issues which would be normally be covered by the union representative.

In all cases, at the initial meeting the service provider or trainer will explain the various ways in which literacy task analysis can contribute to effective basic skills training. This setting into context of literacy task analysis will help the business and labour partners to make decisions about the approaches they will take to basic skills training.

2. The Context of Literacy Task Analysis Within the Total Framework of Training

There are several contexts in which literacy task analysis fits into the framework of basic skills training in the workplace.

Quite often the literacy task analysis will provide the direction and scope for setting up a workplace literacy program based on actual job content and geared toward one or more of the three goals of learning a job, transferability and promotability.

When a literacy task analysis is used for this purpose, it exists as part of a process - a process which begins with a familiarization with the workplace and its culture, and which uses literacy task analysis as one very fundamental step in a number of steps which culminate in the implementation of a basic skills program. It is the literacy task analysis step which facilitates program design and curriculum development and which points the way toward appropriate modes of individual assessment.

Literacy task analysis can also be used for one or more of the following purposes:

* identifying the most appropriate content areas around which simplification of manuals and other materials can be built with maximum applicability to specific jobs

* identifying an information base for Plain Language approaches to materials development and training, based on a real rather than a hypothetical knowledge of basic skills required to do various jobs

* narrowing and channeling the focus of curriculum design which emerges from a DACUM (designing a curriculum model) process.

It may be that a company is uncertain as to whether to proceed with basic skills upgrading at all, or they may be hesitant to commit themselves to a long range process. The trainer will, therefore, make sure that the business and labour partners are aware of the wide ranging uses of literacy task analysis and the ways in which it will target training toward real needs.

There is no set formula for how long it will take to assess the organizational and cultural climate of the workplace and to determine how its dynamics will affect training decisions. In a small company this function can take place quickly, whereas in a large company it will be necessary to become familiar with various divisions and how they interface with one another.

After the decision has been made by the company or union to proceed with the Literacy Task Analysis then it will be time to devise a formal agreement which can be used to make sure that all partners in the initiative understand their roles and responsibilities in respect to a literacy task analysis in the workplace. The elements of the agreement should be discussed and agreed upon and signed by all partners.

Often the agreement will be drafted by the service provider or trainer, but this can differ depending on the dynamics of a specific workplace and the degree of trust among the training partners. Who initiates the agreement is not important. The important thing is that all partners agree to it.

3. **The Literacy Task Analysis Agreement**

The Literacy Task Analysis Agreement will provide the means to ensure that all partners in the training initiative understand the roles that each will play in respect to the literacy task analysis. Since literacy task analysis will be a new endeavour in most workplaces there will not be a body of experience to draw upon. If a literacy task analysis is carried out without an analysis agreement there is a possibility of discord breaking out over differing conceptions

of the process - its purposes, methodologies, and outcomes. The analysis agreement is not a new concept and has been used extensively with all types of job and task analysis.

The Literacy Task Analysis Agreement will:

* list the partners - business, union, service provider or trainer, giving names, titles and divisions;

* give the purpose of the analysis, such as: to identify training needs for new hires, to identify upgrading needs for present incumbents, or establish incremental literacy requirements for transferability or promotability;

* list the employees who will be interviewed or observed. These will be highly competent performers, so that the analyst will see how the basic skills of the job are done at optimal level of performance;

* list the methods which will be used during the literacy task analysis;

* outline resources of time and materials;

* detail the opportunities each partner will have for discussion and review throughout the process and responsibilities pursuant to review;

* state the outputs expected from the analysis, including whether there are to be training materials, and guides for program design as well as descriptions of the basic skills aspects of the job analyzed.

Study Questions

1. Think of your role as a potential workplace partner for literacy training. What actions can you take to ensure that you perform your role effectively?

2. Which barriers to effective partnerships ring most true for you? What steps can you take to break down these barriers?

3. You wish to prepare a Literacy Task Analysis Agreement for your workplace partnership. How will the initial meetings you had with management and labour help you in drafting this document?

Key Points

* Care must be taken to ensure that the training partner has the necessary experience and qualities to conduct training in a workplace environment.

* The business and labour partners need to take active roles to ensure a successful literacy initiative.

* The service provider or training partner must earn the respect of business and labour in order to be accepted as a full partner.

* Technical training and basic skills training are interdependent. Convincing labour and management of the way in which these two skill areas complement one another is a very solid way of selling the idea of a literacy training partnership which includes literacy task analysis.

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SECTION 7 How to Use the Literacy Task Analysis to Develop Training

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Principles for Developing a Job-Related Curriculum

After you have completed the basic steps of a literacy task analysis the trainer should be ready to decide on instructional strategies and develop the training materials for a program. Before sitting down to begin this step the most important consideration may well be an awareness of the variety of individuals who could be in any one instructional situation. This range of trainee characteristics may mean that a variety of methods and materials should be planned so that different individuals with different learning preferences and abilities would feel satisfied with some aspects of the learning situation.

More specifically it is vital for a trainer to:

1) recognize that learners have a vast reservoir of knowledge and experience from which to draw and apply to the current training program.

2) remember that trainees will be motivated in a learning situation if they can see how their successes can be applied in their "real world" of work.

3) focus the curriculum on the basic skills for the specific tasks of the job.

4) develop clearly stated learning objectives from the literacy task analysis that directly relates to the basic skills needed for job performance.

5) use the materials actually used on the job so that trainees can understand the job content.

6) avoid using the words literacy and basic skills when describing the curriculum or program.

7) build "worker involvement" directly inot the program design.

Learner Participation

Trainers may find that most adult trainees are interested in moving towards some degree of self-direction in a program and want to have input into what they learn. Although this will depend on the nature of the workplace training there are at least three crucial points for learner participation.

1. *Helping with objectives.* If a set of prepared objectives are presented at the beginning of a program, the trainer can ask participants to make suggestions for changes, additions or deletions. Learners should have the opportunity to say what they expect from the situation.

2. *Suggesting work-related content.* Even though the results of the literacy task analysis provide the major learning activities for a program, trainees may also act as key resources in providing supplementary topics or in identifying problems that are related to the course objectives.

3. *Evaluation.* At various parts of the program trainees should be asked to participate in the evaluation of the program. They should help determine whether the objectives are being met and whether the learning activities are specific enough to enhance job performance. By inviting the trainee into the formative evaluation process changes in the direction of the program can be easily facilitated. In addition, trainees should be involved in their own assessment which will be discussed in the next section.

The Importance of Performance Objectives

One of the keys to an effective workplace program using a literacy task analysis is developing objectives. An objective is simply a statement of what trainees are expected to learn or be able to do after the instruction. When a trainer puts together a list of topics or selects learning activities from the results of a literacy task analysis this is an implicit statement of objectives. Some readers may ask "What are the advantages of translating these lists into statements?" There are basically four advantages.

1. Methods, materials and feedback techniques can be clearly related to objectives.

2. The individual trainee is aware of what is expected.

3. Objectives are useful aids in the planning process.

4. Objectives are useful in communicating with individuals or groups who need information about the workplace program.

Types of Objectives

It is important to remember that there are different types of learning that require different teaching techniques. It may be helpful to review these general areas or domains of learning in order to set the stage for the selection of instructional strategies.

1. The cognitive or knowledge domain includes all intellectual processes such as the recall of definitions and terms; the comprehension of concepts; the application of procedures to solve a problem; the analysis of a solution.

2. The affective or attitudinal domain includes such learning as values, beliefs, attitudes, emotions, motivation and interests.

3. The psychomotor or skills domain includes any physical performance such as the finely coordinated movements that are a part of technical skills.

How to Write Objectives

In workplace programs end objectives or performance objectives are often used. A performance objective describes the main tasks the learner will actually do following the training. It has three fundamental characteristics.

1. ***It is measurable.***
2. ***It states a specific condition under which performance is expected to occur.***
3. ***It describes an adequate standard of performance.***

Each of these characteristics will be illustrated in the following discussion. Some trainers and instructors may have had previous experience writing performance objectives while others may not. It may be useful here to describe the steps in writing performance objectives.

STEP 1 Based on the results of the literacy task analysis certain main tasks will actually be highlighted in the training program. The first step in writing performance objectives is to translate these main tasks into observable or measurable terms. The simplest way of doing

this is to choose an action verb telling what a trainee will do such as to estimate, to identify, to compare, to locate. Verbs like to learn, to know, to understand describe internal states and are not useful in writing performance objectives.

STEP 2 For each statement that has been translated into observable behaviour or a learner product consider the degree of detail. Depending on the characteristics of the trainees there may be statements which should be subdivided for clarity or combined for convenience.

STEP 3 Consider for each performance objective the circumstances or conditions under which the learning will take place and the standard of performance or criterion that is acceptable.

STEP 4 After the performance objectives have been written ask the employee and supervisor to review them. This will help ensure that the objectives contain no ambiguous terms or vague descriptions of behaviors. An illustration of several performance objectives based on the results of the literacy task analysis of the motor vehicle repair person in Section 3 follows.

EXAMPLE 1 Given access to an Alltest (condition) the trainee will diagnose an engine malfunction (performance) according to the automobile specifications within a pre-established time period without injury or damage (standard)

EXAMPLE 2 Given access to a shop telephone (condition) the trainee will explain a mechanical car problem in ordinary language (performance) according to the criteria outlined by the trainer (standard)

EXAMPLE 3 Given access to an automobile parts catalogue (condition) the trainee will estimate the costs of a front brakes job (performance) with no errors (standard)

Which Training Methods Should I Use

The results of a literacy task analysis not only help the trainer in writing objectives for the workplace program but can also provide direction in the selection of training methods and

materials for instruction. These methods can be determined through a continuous learner-trainer dialogue. As P. Cranton in her book ***Planning Instruction for Adult Learners*** suggests, the method is the vehicle for instructor-learner communication and the materials are the resources used to communicate information.

Since there are many instructional methods to choose from when developing a workplace program, the literacy task analysis can offer a means for deciding which one or ones are most effective. The following is a brief summary of some of the instructional strategies and examples of when to use them based on jobs analyzed in preparing this manual.

Individualized Learning Methods

Two important characteristics of this approach are that individuals learn at different speeds and that regular immediate feedback facilitates the learning process. In the individualized learning method trainees work directly with prepared materials at their own pace, receiving information as to their progress at regular intervals.

a) In a *programmed instruction* approach the content of an objective is broken into small sequential steps and usually presented in a booklet. The trainee is presented with some information about one of the steps and then answers a question based on the information. Depending on the answer the trainee turns to a specific page and is either informed that the response is correct, or is given further information. The advantages of this approach are that individuals are provided with considerable structure, feedback is provided immediately and trainees can work at their own pace.

APPLICATION: Create a planogram using the telexon computer to help trainees plan grocery item displays.

b) In a *modularized instruction* approach the trainee focuses on a set of readings or audio visual materials as well as activities and exercises related to the readings and materials. This is usually presented in a booklet or module with model answers to the activities and exercises. Within a training program, modules can be used to teach all objectives or can be used as remedial, enrichment or optional learning activities. In this approach the trainer can act as advisor

answering questions and responding to written work. Advantages to this type of instruction are that trainees can be involved in a variety of activities, can work independently and are able to work at their own pace.

APPLICATION: Modules on Fractions and Decimals to help trainees estimate labour costs for customers.

Experiential Learning Methods

In this method of instruction learning takes place in situations where the trainee is actually involved in performing tasks. This method is referred to as experiential because learning is facilitated by experiencing or doing. The trainee directly participates in a realistic and practical situation.

a) *Field methods* actually take place in the natural work setting. In field teaching the trainee is given a specific task or series of tasks to perform and under the observation of the instructor carries out these tasks. Learning takes

place by doing the task and receiving feedback on the performance from the trainer. In this method the learning experience accurately represents the situation in which the individual will be performing after completing the training program.

APPLICATION: Performing an Alltest on an engine malfunction in order to diagnose a car problem.

b) *Role playing* is most often used where participants are learning interpersonal skills. In role playing, trainees act out a particular situation practising the skills to be mastered. Role playing has the advantage of allowing the participants to experience a variety of situations while remaining in a safe environment.

APPLICATION: Calling a customer and explaining a mechanical car problem in ordinary language.

c) *Simulations* accurately represent real situations and are commonly used to facilitate practice of the application of rules or principles to the situation while remaining in a safe environment. Simulations tend to increase trainee interest and motivation. As well they allow learners to see the direct consequences of their decisions or behaviour.

APPLICATION: Using the telexon computer to write a weekly gross profit statement for head office.

Interactive Methods

Interactive methods focus on communication among learners as well as between instructor and learners. Two key features of this approach are active participation and interaction in the learning process.

a) In a *class discussion* an issue, question or topic of interest is presented and learners discuss with each other their own point of view. The instructor usually facilitates the discussion. When members of a group feel more comfortable interacting with a smaller number of individuals discussion groups can be used. The trainer needs to build a *"safe environment"* for discussion - one in which workers are able to interact without anxiety.

APPLICATION: Outlining the steps in planning a day-staff schedule.

b) When learners have similar interests and when there is evidence that they will benefit from interaction with peers *group projects* may be useful. In this method individuals investigate a specific topic or issue or they create a product according to their interests.

APPLICATION: A group project sequencing and prioritizing activities for the daily planning of the grocery receiver.

c) Another interactive method is *peer teaching* and can be useful when differences in ability level or past experience exist within a group. Individuals who have mastered the objective quickly can adopt the role of tutor and can teach the material to another trainee who has not yet mastered it. However to be effective the process of peer teaching must be carefully planned and monitored by the trainer.

APPLICATION: A butcher trainee nearing the end of the training can teach new trainees how to apply knowledge from pictorial representations of various meat cuts to the carcasses actually on hand for cutting.

Instructor Centered Methods

In this approach the trainer is primarily responsible for conveying the information to the group. It is usually one-way communication.

a) In the *lecture method* the trainer speaks directly to an audience and the learners are passive receivers of information. *Questioning* is usually combined with the lecture method where the trainer directs a series of verbal questions to individual learning or to the group as a whole asking for volunteer responses. Questions can also be used as a form of discovery learning.

APPLICATION: The trainer explains the safe use of a swing stage and how to use a diagram of weights and pulleys to properly determine how to balance it when anchored to a high rise building.

b) In the *demonstration* method the trainer illustrates a concept, application of a concept or a psychomotor skill and is often used along with other methods. In some contexts it may be preceded by a short lecture and an approach for learners to practise the skill or procedure.

APPLICATION: The trainer of the pre-cast repair labourers shows how to use charts depicting varying mixtures of coloured aggregate to obtain various results for exterior walls.

Study Questions

1. Write two performance objectives using the examples of the literacy task analysis discussed in Section 3.

2. From your experience list a number of work related learning activities and choose the most effective instructional method(s).

Key Points

* Focus the training curriculum on the real world of work.
* Involve the trainee in curriculum decisions.
* Performance objectives are measurable.
* Decisions about training methods should be based on course objectives, learner characteristics and the instructional situation.

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SECTION 8 Suggestions for the Development of the Training Program

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Guidelines in Developing a Program

The results of a literacy task analysis can also provide direction for other aspects of the workplace program such as the overall design and the actual details of a lesson or group of lessons. If you look over the various examples of conducting literacy task analyses in Section 3 you will notice that it is quite easy to outline the main features of a program. This broad planning is called the design. As well the examples help illustrate the types of training materials needed to detail a program. Depending on the type of program and performance objectives all of the information collected and analyzed in the literacy task analysis can be used to develop training materials.

These aids can act as:

a) *learning plans* that detail content and activities
b) *bridges* that help sequence one instructional activity into another
c) *integrators* that link activities together and build on participants' previous work experience

In the program planning phase you may want to consider some of the following questions:

1. Based on the results of the literacy task analysis what content should I include in the training program?

2. How should the content be conveyed to the trainees?

3. From the tasks, topics or problems discovered in the literacy task analysis how should I sequence the learning activities?

How to Develop a Lesson Plan

Another important piece of equipment in a trainer's toolbox is the lesson plan. It acts as a blueprint to guide the learners in performing the training objectives. In other words a lesson plan is a sequential set of events that lead to a desired goal. Three basic questions to ask yourself when developing a lesson plan are:

* *Where are you going?*
* *How are you going to get there?*
* *How will you know when you've arrived?*

As mentioned in the previous section learning can be cognitive (knowledge), affective (attitudes), or psychomotor (skills). Accordingly lesson plans will vary depending on the type of learning. However there are some common parts to all lesson plans.

Lesson Topic:

Objective:

Introduction:

Teaching Points:

Learning Activities:

Resources:

Evaluation:

Summary:

A great deal has been written about the development of lesson plans but it can all be boiled down to a couple of easy-to-remember tips.

1. Motivate your learners. Make sure they can see how they are going to benefit from the lesson.

2. Clearly explain the objectives and learning activities.

3. Workers need to apply a new learned skill or idea back on the job. This should be at the core of every lesson.

4. Give learners a role in assessing their own learning. Also provide them with regular *feedback*.

Lesson plans can also be grouped together to form a unit of instruction. A unit of instruction is a well defined portion of the total workplace program centering on a single topic or cluster of competencies. Basically it is an organization of objectives, learning activities and resources prepared for use in a specific teaching - learning situation. Several units together is called a module and is often used in an individualized instructional approach.

Choosing Evaluation Techniques

Evaluation of learners is an important part of a workplace program. It is essential for both the trainer and the trainee to be aware of the progress that is being made. There are basically three approaches to worker testing and assessment: ***criterion,***

referenced tests, alternative assessment techniques and norm referenced tests. Several factors may influence the approach you choose. The most important factor is the preference of the individual trainee. Some workers may prefer a less formal approach while others may be interested in evaluation for upgrading certification. Another factor influencing assessment choice is the nature of the workplace basic skills program. Some programs may involve worker-centered learning while others may focus on core curriculum instruction.

The skills and abilities of the trainer to develop evaluation procedures may also influence choice. With some assessment approaches the trainer will be responsible for creating test items from the program content or helping trainees develop their own porfolios. In addition the issue of confidentiality of individual results may also influence the evaluation techniques you choose. It is important to discuss with trainees at the beginning of a program who will have access to their evaluation results.

Criterion Referenced Tests. If performance objectives have been written from the results of a literacy task analysis an evaluation approach called criterion referenced tests can be useful. Criterion referenced evaluation is not concerned with comparisons

among individuals but rather with the trainees' mastery of an objective. In this approach a cut-off score has been selected as an indicator of mastery of the content. For example a trainer may develop a ten question test designed to assess mastery of one specific objective. These questions may be true or false, multiple choice, matching, checklist, rating scales or other types of question but in each case the trainer determines the criterion or cut-off score such as 9/10 questions with correct responses. An excellent resource for workplace trainers in the development of such tests is the Instructional Development Learning System: Criterion Tests by P. Esseff and M. Esseff.

Alternative Assessment Techniques. Another approach to evaluation are the alternative assessment techniques such as progress interviews and trainee portfolio development. Progress interviews record such information as the type of reading the learner does, the uses of literacy in the daily work lives of the trainee, self-evaluations of literacy abilities and skills and judgement of ability by the trainer. In the portfolio development technique trainees develop portfolios of their work in the basic skills areas including both in class and out of class work. Peers, trainers and trainees meet periodically to discuss the trainees' work and how it is progressing.

Norm Referenced Tests. Some workplace programs may offer basic upgrading courses so that trainees can obtain a grade 10 or grade 12 certificate. If this is the case the more traditional approach of norm referenced tests may be considered. In this approach the scores that individuals receive are meaningful in comparison to other individuals or in comparison to a norm group. However norm referenced tests tend to be long and are not necessarily associated with a set of objectives. Some frequently used tests in general adult literacy and basic education are: The Canadian Adult Achievement Test; Tests of Adult Basic Education Forms 5 and 6; the Basic English Skills Test; the Adult Basic Learning Examination; the Comprehensive Adult Student Assessment and the English as a Second Language Oral Assessment.

Study Questions

1. Using an example of a literacy task analysis in Section 3 plan out one lesson.

2. How could you involve a trainee in deciding what would go into his or her assessment portfolio?

Key Points

* A literacy task analysis can help a trainer with the broad planning of a program as well as detailed lessons.

* A lesson plan is a sequential set of events that lead to a desired goal.

* Three evaluation approaches are criterion referenced tests, norm referenced tests and alternative assessment techniques.

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SECTION 9 Resources, References and Glossary

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Glossary

* ***Observation Interview*** - a method for job and task analysis in which the jobholder is observed and subsequently questioned further by the analyst in order to obtain more information on the tasks being carried out

** ***Task Matrix Technique*** - a technique used to arrange information about major job duties and common competencies as a first step in uncovering the basic skills required to perform specific tasks

** ***Basic Task Description Technique*** - a technique used to record the steps or elements in a task along with related information like literacy skills, conditions, equipment and standards

Task Criticality - the importance of specific tasks in regard to the effective carrying out of job functions

** ***Daily Log Technique*** - a technique used to determine task statements when job-related documents do not exist and the incumbent is unable to describe precisely all the elements of the job

** ***Risk Assessment Technique*** - a technique used after the task inventory is compiled to determine the importance and difficulty of each task. From this assessment the analyst can target selected tasks for further analysis and training

** ***Walk and Talk Technique*** - a technique used to help the job holder identify the types of equipment, materials, activities and literacy skills used when doing a job so that task statements can be written

** ***Flow Chart Technique*** - a technique used to show the sequential actions and decisions in a complex process such as critical thinking or problem solving. It reduces complexity by showing a likely set of actions and simple decisions

** ***Interview Note Technique*** - a technique used to record and detail task statements elicited during interviews with a job holder

** ***Job Function Technique*** - a technique which provides standardized categories (people, information, things) which can be used to identify and organize specific tasks

* ***Job Learning Analysis Technique*** - a structured job analysis questionnaire which describes jobs not in terms of their content or skills and abilities, but in terms of nine learning skills which contribute to the satisfactory performance of the job

* ***Structured Job Analysis Interview Technique*** - a "do it yourself" method of job and task analysis for managers which provides a broad-brush picture of a job in a relatively short time

Workplace Literacy - " the written and spoken language, basic communication and computation, and the thinking and problem solving skills that workers and trainees use to perform job tasks or training." (Askov, 1989)

Basic Skills Profile - categories of skills which, taken together, are the core skill requirements on which higher level skills are built

Personal Management Skills - skills related to developing the attitudes and behaviours required to keep and progress on the job. Knowing company policies and practices, and time management are examples.

Teamwork Skills - skills needed to work with others on the job. Working with supervisors and co-workers and exercising "give and take" to achieve group results are examples.

Job Analysis - a method of obtaining information about a job that will be performed or is currently being performed

Task Analysis - a method of obtaining detailed information about the specific components of a job such as abilities, skills and knowledge

Task - a goal directed unit of work that has a definite beginning and end such as communicating with a customer, replacing a wheel bearing or completing a driver's trip sheet

Task element - a smaller unit of work that is performed by a single person such as answering customer questions, removing a wheel or checking for mileage. Several task elements make up a task

Needs Assessment - a probing of the workplace environment focused on discovering the ways in which organizational factors will influence training needs. Areas examined in a needs assessment include: the impact of technological change on work processes, the education and linguistic background of workers, management style, and degree to which there is a training culture.

Literacy Task Analysis Agreement - an agreement signed by all the workplace partners (business, labour, service provider) outlining the purposes of the literacy task analysis, the methods to be used, the jobs to be analyzed and the responsibilities of each partner

Performance Objective - describes the main tasks the learner will actually do following the training

Programmed Instruction - a method of instruction in which the content of an objective is broken into small sequential steps and presented in a booklet. Self paced questions and answers allow the learners to move through the material at their own speed.

Modularized Instruction - a method of instruction in which the trainee focuses on a set of readings or audio visual materials as well as activities and exercises related to the readings and materials

Field Methods - an experiential learning method in which the trainee is given a specific task or series of tasks to perform and under the observation of the instructor carries out these tasks

Role Playing - an experiential learning method in which trainees act out a particular situation, practising the skills to be mastered

Simulations - a method of experiential learning in which real situations are represented, used to facilitate practice of the application of rules or principles

Peer Teaching - an interactive method in which a trainee who has mastered the information quickly can adopt the role of tutor and teach the material to another trainee who has not yet mastered it

Unit of Instruction - a well defined portion of the total workplace program centering on a single topic or cluster of competencies

Criterion referenced tests - a technique of evaluation which is not concerned with comparisons among individuals but rather with the trainees' mastery of an objective

Norm referenced tests - a technique of evaluation in which the scores of individuals are compared to scores of other individuals and which is not necessarily tied to a set of objectives

Source:

* Pearn, M. and Kandola, R., (1988), Job Analysis - A Practical Guide for Managers, Institute for Personnel Management. Wimbledon, London.

** Carlisle, Kenneth E., (1986) Analyzing Jobs and Tasks, Educational Technology Publications, Englewood Cliffs, New Jersey.